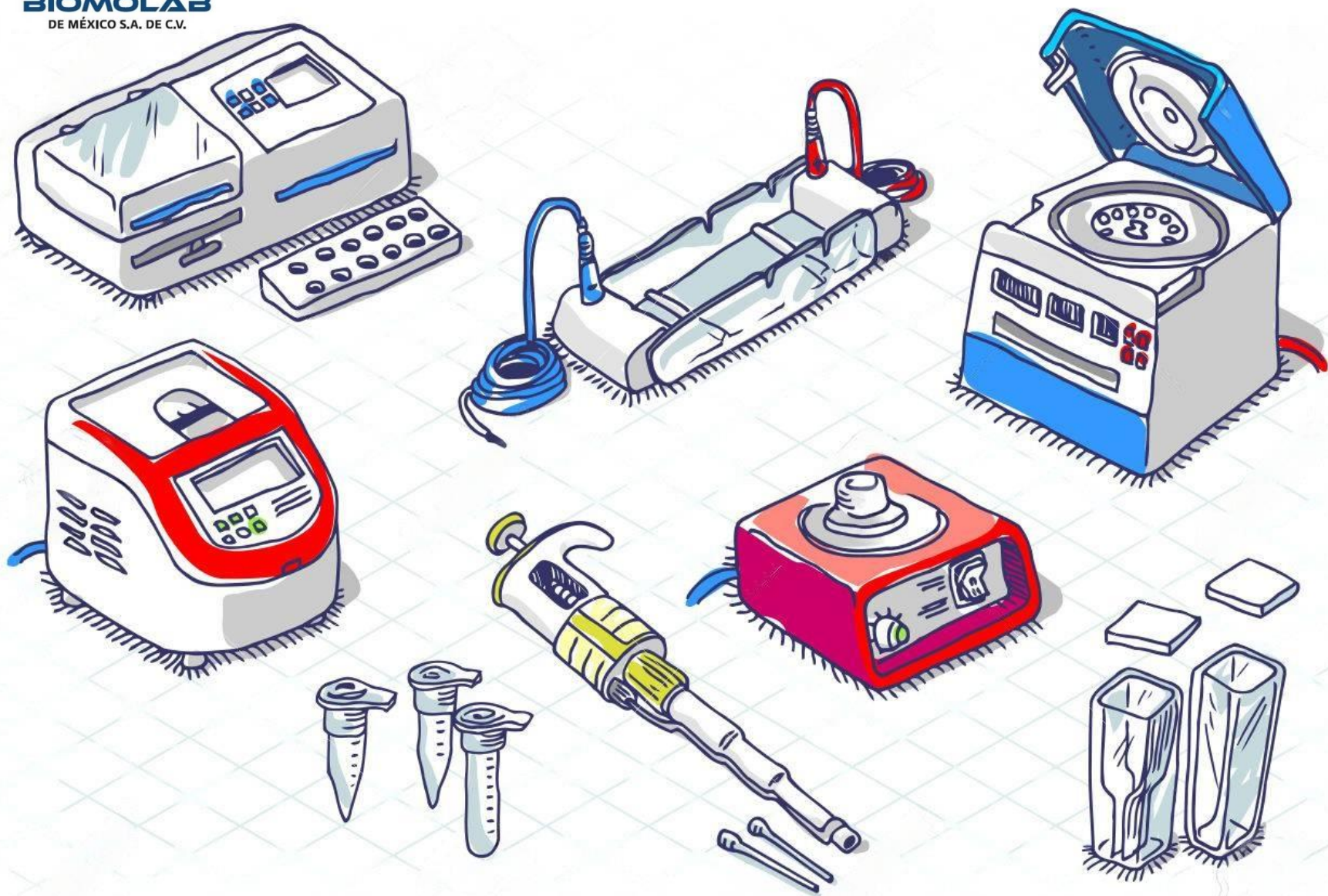


# BIOMOLAB de México Catálogo



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## brands Thermal Cyclers



Gradient Thermal Cycler  
Real-Time PCR Instrument

## PCR Instruments

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**BENCHMARK TC 9639 GRADIENT THERMAL CYCLER**

- Intuitive touch screen control
- Program Wizard – quick, easy & foolproof
- Unique multi-format block: 0.2ml tubes or strips, 0.5ml tubes, 96 well plate
- Optimize results with AZURA™ PCR reagents

Ordering Information:	
Catalog #	Description:
T5000-96	TC 9639 Thermal Cycler with multiformat block
T5000-384	TC 9639 Thermal Cycler with 384 well block
T5000-A-IS	In-Situ Adapter, for 9639.96

Benchmark’s TC9639 Thermal Cycler provides consistent, reliable results for laboratories with medium to high throughput. From its large, touch-screen user interface to its unique, multi-format block, this cycler is loaded with features. The program wizard and 10 preinstalled programs make it easier than ever to get up and running.

A **large, full color touch screen** serves as the operations center where all functions are accessed. From the “Home” screen, simply touch an icon to view the last run program, enter the program library, or use the program wizard to quickly enter a protocol. In addition, icons for favorite programs can be added for faster access.

The **program wizard** guides users through quickly setting up a protocol in a single screen. Once entered, programs are shown graphically, and can be edited by simply touching the step that requires modification. Time and temperature increments can be built into programs as well as slower ramp rates. Storage capabilities are unlimited; programs can be stored in public folders, private (password protected) folders or on a flash drive. The full virtual keyboard allows for alphanumeric naming of programs and folders.

The **fully adjustable heated lid** prevents condensation and evaporation of samples. Lid temperature can be programmed, and when the block temperature is below 35°, the lid automatically shuts off. Heating and cooling of the block are precisely and accurately controlled within exceptionally tight tolerances by a proprietary algorithm that simulates sample temperature.

With the **multi-format block**, there is no need for the expense of multiple interchangeable blocks. *The TC 9639 has the flexibility to accept 96x0.2ml tubes, a 96 well plate, 0.2ml strips or 39 x 0.5ml tubes all in the same sample block.* For protocol optimization, a gradient can be set up across the block. An optional in-situ adapter allows for incubation of slides. Additionally, the unit may be purchased with a 384 well sample block.





Related Products

Technical Specifications

Use Azura Genomics™ brand PCR reagents

For our thermal stable polymerases and nucleotides, see Azura™ section, pages



Use Neptune™ brand PCR tubes

Pages



Glove up with new™ brand premium nitrile gloves

Page



Neptune™ brand barrier tips

Choose our barrier tips with S³ technology for maximum sample recovery. See pages of our Neptune™ section.

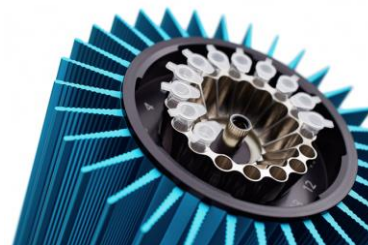


Storage, Storage, Storage!

Our new™ brand section invites you to get organized (see pages ).



Capacity	
9639 Block (included):	96 x 0.2ml tubes / strips or 1 PCR 96 well plate (nonskirted) or 39 x 0.5ml
384 Well Block:	1 x 384 well plate
In-Situ Adapter:	4 slides (for use with 9639 block)
Temp. Control Range:	0 to 100°C
Temp. Control:	Simulated sample or block
Accuracy/Uniformity	± 0.2°C / ± 0.2°C
Ramp Rate:	5°C / Sec (maximum)
Lid Temp:	30 to 112°C, user adjustable
Program Memory:	Unlimited with flash drive
Gradient range/differential	30°C to 105°C / 1°C to 30°C
Increments/Decrements:	Yes, both time and temperature
Multiusers Login:	Yes
Power Failure Restart:	Yes, with password protection
Power Supply:	Universal, 75 to 275V, 50/60 Hz
Communication:	USB, LAN and RS232
Dimensions:	10.2 x 14.2 x 9.9 in / 26 x 36 x 25 cm
Weight:	16 lb / 7.3 kg



### MyGo Mini S Real-Time PCR Instrument

The MyGo Mini S is the world's most compact real-time PCR instrument, with no moving parts, enabling silent operation and maximum reliability. It provides users with great results over a broad range of applications.

- Fast - Reduced hold times enable results in less than 30 minutes
- Dual Channel for assay flexibility – Intercalating dyes and TaqMan™ probes
- Lightweight and Portable - Only 5.5 lbs
- Designed for diagnostics, research and education

#### PRECISION AND PERFORMANCE

The MyGo Mini demonstrates superior intra-run and inter-run analytical precision in DNA quantification and melting point analysis.

Users can now address biological phenomena with subtle effects on gene expression, or pathogen levels, for example discriminating 10% differences in transcript concentrations.

For users performing HRM-based analysis of genetic variants, the combination of thermal control, optical data quality and HRM data analysis of the MyGo Mini system provide compelling functionality. The system can discriminate all classes of SNP, including Class 4 SNPs via HRM.

#### EASY ANALYSIS

The MyGo Mini system comes with easy-to-use software, and robust, high performance algorithms which provide accurate results from complex data. Automated analysis of complex HRM data makes this powerful technique more accessible to non-experts, and minimizes operator-dependent variability in data analysis.

Automated report generation makes life easier for service providers, and users operating within GLP quality systems.

#### SOLID-STATE RELIABILITY

The MyGo Mini is the world's first completely solid-state real-time PCR machine, with no moving parts. The MyGo Mini has been designed to last, then made and tested to exacting standards. The result is a silent, highly reliable instrument, with the option of a 5 year extended warranty.

#### COMPATIBILITY

The MyGo Mini software can be installed on Mac OS X, Windows, and Linux operating systems. Use your choice of computer and operating system. The MyGo Mini is also compatible with standard 0.1mL low-profile tubes, which are convenient and cost-effective.

#### CONNECTIVITY

The MyGo Mini software does not require a dedicated computer, unlike some competitor instruments. So users do not need to find the space or money for an additional computer to run the system, and they can run the operating system that they are familiar with. In addition the MyGo Mini software enables the user to control hundreds of instruments whilst simultaneously analyzing run data on one computer. No other qPCR system offers these benefits to the user.

**Software :** Mac OS X ( 70MB ) | Windows ( 67MB ) | Cross Platform ( 24MB ) |  
**Demo Data ( 13MB )**

## T e c h n i c a l      S p e c i f i c a t i o n s



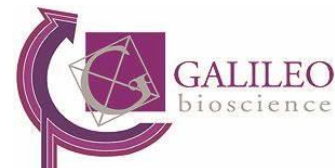
Optics	
No. Of Wells	16
Format	0.1 ml tubes
Reaction Volume	10 – 100 µl
Run Time	< 60 mins

## What's in the box?

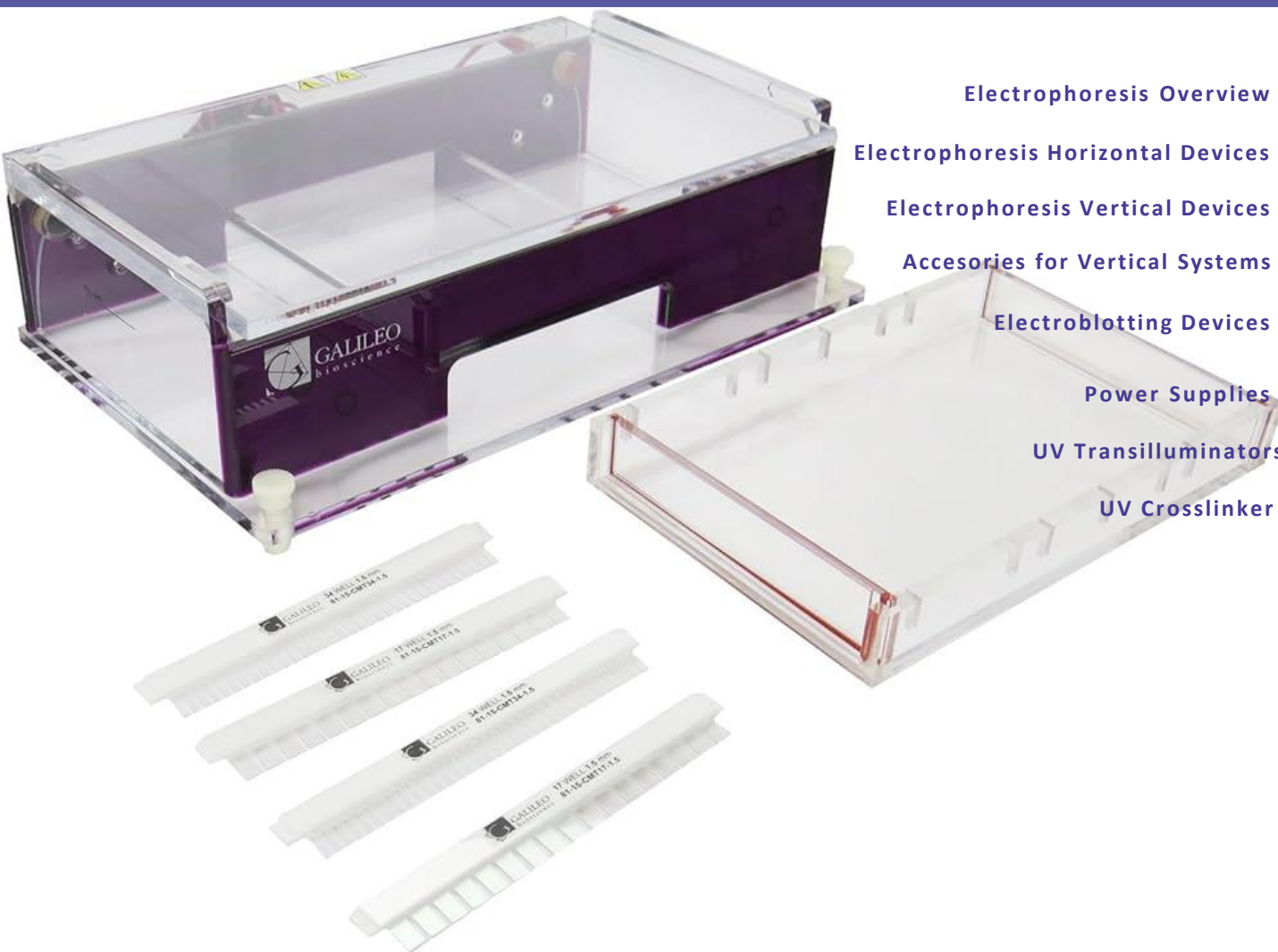
- MyGo Mini S Instrument
- AC power supply with plug
- Ethernet cable
- USB extender cable
- MyGo USB
- Quick start user guide
- Single PCR tubes – box of 200

Optics	
No. Of Channels	2 (Duplex)
Fluorescence Excitation	475 nm (blue LED)
Fluorescence Detection	500 to 650 nm
Detector Type	CMOS array
Detection Sensitivity	Single copy detection
Dynamic Range	9-log
Precision	1.1 fold discrimination
Temperature Control	
Thermal System	Peltier, aluminium copper alloy block
Temperature Range	37 to 99°C
Heating Speed	3°C/s
Cooling Speed	1.5°C/s
Thermal Uniformity	+/- 0.1°C
Thermal Accuracy	+/- 0.25°C
Factory Calibrated Dyes	SYBR Green I, ResoLight, FAM, VIC, HEX, CAL540, CAL560 (Generic Dye files)
Multiplex with Red Dyes	No
Supported Assay Formats	Intercalating dyes (e.g. SYBR Green I), Hydrolysis Probes
Interface	Desktop PC/laptop required Note: <i>Protocols can be run from a preloaded USB thumb drive</i>
Progress Status	Colour and Audio alerts
Connectivity	Free Windows/Mac OS X and Linux operating software
Dimensions   Weight	16 x 12 cm   2 kg
Electrical	90 W (12V battery option)   100-240 VAC +/- 10% 50/60 Hz



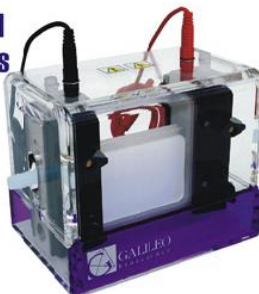


# Galileo Bioscience™ brand Electrophoresis



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UV Crosslinker	Page 30



vertical  
gel units

2010



Galileo

tank-  
style  
transfer  
systems

### Multi-Cast System

Galileo multi-casters use flexible seals and quick cam action to seal standard flush-cut trays for tape-less gels.



semi-dry

transfer  
systems

### Galileo Electrophoresis Systems

Galileo Bioscience offers a complete line of electrophoresis systems.

Galileo electrophoresis accessories, including trays combs and glass, also fit many other gel units from other manufactures.

### Product Lines

- Horizontal gel systems.
- Horizontal gel casting systems & trays.
- Vertical gel systems
- Replacement glass for vertical system.
- Tank blotting system.

### Wide range of units -

Looking for horizontal devices, vertical units or electro-blotting equipment? You will find all the features that you demand for usability, performance and reliability from Galileo Bioscience.

### Complete accessories lines –

Galileo Bioscience also offers a complete line of accessories for all their devices. In addition, many of the trays, combs and other components are compatible with devices by Owl scientific and others. Upgrade your system with Galileo accessories.

### Unsurpassed quality –

These units are made from the highest quality materials by a dedicated team of employees. Design improvements insure long electrode life and extra-durable construction.

## Electrophoresis Comparison Chart



Catalog #	80-0708	80-0911	80-1214	81-1515	81-2314	81-2325	73.1010-COMBO	77.1010-SD	77.2020-SD	77.1010-TB	77.1010-TB	77.1010-TB	77.1010-TB
Before	75.710	75.1214	75.2314	75.2321	73.1010V	73.1020V	73.1010-COMBO	77.1010-SD	77.2020-SD	77.1010-TB	77.1010-TB	77.1010-TB	77.1010-TB
Functionality	Horizontal gel electrophoresis	Horizontal gel electrophoresis	Horizontal gel electrophoresis	Horizontal gel electrophoresis	Vertical gel electrophoresis	Vertical gel electrophoresis	PAGE and Blotting	Semi-dry electroblotting	Semi-dry electroblotting	Tank electroblotting	Tank electroblotting	Tank electroblotting	Tank electroblotting
Gel Size	7 x 10cm	12 x 14cm	23 x 14cm	23 x 21cm	10 x 10cm	10 x 20cm	10 x 10cm	11 x 11cm	21 x 21cm	10 x 10cm	10 x 10cm	10 x 10cm	10 x 10cm
EZ Pour Available?	Yes	Yes	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum # of Samples	24	100	200	400	24	72	24	N/A	N/A	N/A	N/A	N/A	N/A
Unit Dimensions (H x L x W)	8 x 16 x 9.5cm	8 x 24.5 x 18cm	8 x 29 x 26cm	11 x 36 x 30cm	15 x 17 x 12cm	15 x 28 x 13cm	15 x 14 x 8cm	19 x 19 x 4cm	29 x 29 x 4cm	13 x 15 x 15cm	13 x 15 x 15cm	13 x 15 x 15cm	13 x 15 x 15cm
Unit Weight	2.25kg	4.5kg	4.5kg	4.5kg	2.25kg	2.25kg	0.45kg	1.4kg	3.6kg	2.25kg	2.25kg	2.25kg	2.25kg
Included Accessories	1 UVT tray, 2 combs (75.710-10D)	1 UVT tray, 2 combs (75.1214-20D)	1 UVT tray, 4 combs 2 each of (75.23-MT-25C & 75.23-MTS-50D)	1 UVT tray, 4 combs 2 each of (75.23-MT-25C & 75.23-MTS-50D)	2 sets of glass plates, Casting stand, 2 combs and spacer set (73.1010V-12D)	6-slot gel tray and 2 each 25 & 50 tooth combs	Tank and electrophoresis and blotting modules	N/A	N/A	1 transfer cassette	1 transfer cassette	1 transfer cassette	1 transfer cassette
Warranty	3 years	3 years	3 years	3 years	3 years	3 years	3 years	3 years	3 years	3 years	3 years	3 years	3 years
Casting Options	EZ cast or platform	EZ cast or platform	MultiCastplatform	MultiCastplatform	Pre-cast or self-cast	Self-cast	Pre-cast	N/A	N/A	N/A	N/A	N/A	N/A
Voltage Limit	150V	150V	200V	200V	150V	150V	150V	100V	100V	150V	150V	150V	150V
Buffer Requirements	400ml	800ml	1000ml	2000ml	250ml upper, 150-200ml lower	500ml upper, 200-400 ml lower	250ml upper, 150-200ml lower	minimal	minimal	1,300ml	1,300ml	1,300ml	1,300ml





**Mini Horizontal Systems**

Galileo mini gel systems are ideal for quick resolution of analytes from PCR, RE digestion, ligation and other common laboratory reactions. Mini Horizontal Systems RapidCast™ Mini-Gel Systems Feature: Integrated buffer recirculation: Select units now available with integrated automatic buffer recirculation. No external tubing or pumps required!

RapidCast™ gel casting technology: RapidCast™ Technology uses trays with incorporated end gaskets, to easily cast gels in the gel unit base. Quick! No tape! Buffer chamber with color coded, sealed platinum electrodes and non-slip rubber feet. Safety cover with attached retractable-sheathed power cords. Systems include 2 combs of your choice. UV transmissible gel tray with long-life silicone gaskets, built-in fluorescent ruler and 2-4 comb slots. Wide range of other combs and accessories available.

**Three sizes to fit your needs:**

Unit	80-0708	80-0911	80-1214 *
<b>Gel width</b>	7	9	12
<b>Gel run length</b>	8	11	14
<b>Max full run simples</b>	12	18	25
<b>Maximum simples</b>	24	36	100
<b>Comb Slots</b>	2	2	4

\*Available with automatic integrated buffer recirculation

**RapidCast™ gel casting technology:**

RapidCast™ Technology uses trays with incorporated end gaskets, to easily cast gels in the gel unit base. Quick! No tape!

Integrated buffer recirculation: Select units now available with integrated automatic buffer recirculation. No external tubing or pumps required!

**High Performance**

Exceptional resolution. Platinum electrodes configured to provide uniform field for straight runs. Multiple comb slot options for a wide range of sample and run-length configurations.

**Convenient & Versatile**

UV transmissible gel trays with built-in fluorescent rulers. Machined finger grooves on the tray sides for easy and sure handling. Wide range of comb configurations, including multi-channel capability. Selected units available with buffer recirculation capabilities. Combs specifications clearly marked on each comb. Optional casting methods for flexibility, convenience and speed.

**Safe & Reliable**

High quality 9mm thick rugged acrylic construction, resists cracking and warping. Your safety ensured with interlocking lid, protected sockets and permanently attached power cords. Epoxy sealed electrode connections, resist corrosion and leaks. Gold plated banana plugs. Meets or exceeds IEC1010-1 standards. S

**RapidCast™ gel casting technology for mini gel units**

RapidCast™ Technology uses trays with incorporated end gaskets, to easily cast gels in the gel unit base.

Turn tray across gel platform to seal and pour. Align with platform to run. No tape! No Leaks! Fast & Efficient.



Also available is the RapidCast™ gel casting frame which allows casting up to 3 gels at once, even while the mini-gel unit is in use.

### 0708 Mini Gel Unit

Perfectly sized for rapid analysis of small analytes like PCR and RE fragments. This unit features a RapidCast gasketed tray for quick in-unit gel casting.

Choose a standard package or customize your system with choices from the many combs and other system components we offer.

#### System description –

The standard 0708 mini gel system includes a RapiCast™ gasketed gel tray for convenient gel casting right in the buffer chamber.

#### System features –

Heavy duty lower buffer chamber

Interlock safety lid with attached leads

Gasketed (cast in place) 7cm wide x 8cm long UV-transparent gel tray with built-in fluorescent ruler and 2 comb slots.

One 1.5mm x 6 tooth comb

One 1.5mm x 10 tooth comb

#### System accessories –

Choose among these accessories to customize each system for your specific needs.

80-0708-LGT non-gasketed tray measures 7x10cm (2cm longer) for increased run length. Can be sealed with tape or use the Galileo casting systems listed below.

80-0708-RCGC. For easy, tape free casting. Accommodates up to three 0708 RapidCast gel trays.

# 0708



Unit dimensions	12W x 17.6L x 9.5H cm
Gel size (cm) 7W x 8L	7W x 8L cm
buffer capacity	400ml
gel volume	28ml
max sample capacity	24
max samples/full length run	12
electrode separation length	18 cm
standard features	epoxy-sealed connections   platinum electrodes   Non-slip feet
safety features safety cover	safety cover   sheathed power leads
included tray	RapidCast   UV transmissible   fluorescent ruler   2 comb slots
included combs	1.5mm, 6 & 10 well *
options	optional buffer ports
running conditions	60 volts   5 volts/cm of electrode separation or 110V   constant voltage (200V max voltage)

#### UNITS

Before	Catalog #	Description
75.710	80-0708	RapidCast Complete system for 7x8 cm gels – Includes gasketed tray and a 6 and 10 tooth comb
-----	80-0708-BEP	RapidCast Minigel System with Buffer Exchange Ports, 7 x 8 cm
-----	80.0708L-PK	RapidCast Complete system for 7x8cm gels includes gasketed tray, long non-gasketed tray, and 6 & 10 tooth combs
<b>ACCESORIES</b>		
-----	80-0708-RCGT	RapidCast Tray for 7x8cm gels
-----	80-0708-GSK	Replacement Gasket, srt of 2
-----	80-0708-RCGC	RapidCast Gel Caster, holds 3 x 80-0708RCGT
-----	80-0708-LGT	Standard Gel Tray for 7x10 cm gels, 2 comb slots

#### COMBS

Before	Catalog #	Thickness	Teeth #
-----	80-0708-C5-1.0	1 mm	5
-----	80-0708-C6-1.0	1mm	6
75.710-8C	80-0708-C8-1.0	1mm	8
75.710-10C	80-0708-C10-1.0		10
75.710-12C	80-0708-C12-1.0	1mm	12
-----	80-0708-C5-1.5	1.5mm	5
-----	80-0708-C6-1.5	1.5mm	6
75.710-8D	80-0708-C8-1.5	1.5mm	8
75.710-10D	80-0708-C10-1.5	1.5mm	10
75.710-12D	80-0708-C12-1.5	1.5mm	12
-----	80-0708-PREP	1.5mm	2



**RapidCast™ Mini Gel Systems Galileo Bioscience 80-0911**

Is a versatile mini-gel unit that offers a little more run length and capacity for restriction fragment and PCR amplicon analysis.

Two unit configurations are available: Both systems feature Galileo's RapidCast™ casting system for tapeless casting in the buffer chamber base or in Galileo's optional casting frame. The 80-0911-BEP unit includes buffer recirculation ports for connection to external buffer recirculation devices.

Unit	80-0911	80-0911-BEP *
<b>Gel Width</b>	9 cm	9 cm
<b>Gel run length</b>	11 cm	11 cm
<b>Max full run simples</b>	18	18
<b>Maximum simples</b>	36	36
<b>Comb Slots</b>	2	2

\*unit includes buffer recirculation ports for connection to external recirculation devices.



Unit dimensions	15.22W x 22L x 9.5H cm
Gel size (cm) 7W x 8L	9 W x 11 L cm
buffer capacity	600ml
gel volumen (0.5 cm thick)	50 ml
max sample capacity	36
max samples/full length run	18
electrode separation length	19 cm
standard features	epoxy-sealed connections   platinum electrodes   Non-slip feet
safety features	safety cover   sheathed power leads
included tray	RapidCast   UV transmissible   fluorescent ruler   2 comb slots
included combs	1.5mm, 10 & 14 well *
options	optional buffer ports
running conditions	90 volts   5 volts/cm of electrode separation or 110V   constant voltage (200V max voltage)



RapidCast™ Technolgy uses trays with incorporated end gaskets, to easily cast gels in the gel unit base Turn tray across gel platform to seal and pour Align with platform to run No tape! No Leaks! Fast & Efficient

**Ordering Information**

Catalog #	Description	Catalog #	Description
<b>UNITS</b>		<b>80-0911-C14-1.0</b>	14 well comb for 0911, 1mm thick
<b>80-0911</b>	RapidCast complete system, includes gasketed 9x11cm tray + 10&14 1.5mm tooth	<b>80-0911-C14-1.5</b>	14 well comb for 0911, 1.5mm thick
<b>80-0911-BEP</b>	80-0911 System, plus Buffer Exchange Ports	<b>80-0911-CMT18-1.0</b>	18 well comb for 0911, 1mm thick, Microtiter 2X format
<b>COMBS</b>		<b>80-0911-CMT18-1.5</b>	18 well comb for 0911, 1.5mm thick, Microtiter 2X format
<b>80-0911-C5-1.0</b>	5 well comb for 0911, 1mm thick	<b>80-0911-CPREP</b>	Prep comb with 2 teeth, 1.5mm thick
<b>80-0911-C5-1.5</b>	5 well comb for 0911, 1.5mm thick	<b>ACCESORIES</b>	
<b>80-0911-C8-1.0</b>	8 well comb for 0911, 1mm thick	<b>80-0911-RCGT</b>	RapidCast Gel Tray for 9x11cm gels
<b>80-0911-C8-1.5</b>	8 well comb for 0911, 1.5mm thick	<b>80-0911-RCGC</b>	RapidCast Gel Caster, holds 3 x 80-0911-RCGT
<b>80-0911-CMT9-1.0</b>	9 well comb for 0911, 1mm thick, Microtiter 1X format	<b>80-0911-RCPK</b>	RapidCast Gel Caster Pack, includes 3 x 80-0911-RCGT
<b>80-0911-CMT9-1.5</b>	9 well comb for 0911, 1.5mm thick, Microtiter 1X format	<b>80-0911-GSK</b>	RapidCast replacement tray gaskets, set of 2
<b>80-0911-C10-1.0</b>	10 well comb for 0911, 1mm thick		
<b>80-0911-C10-1.5</b>	10 well comb for 0911, 1.5mm thick		
<b>80-0911-C12-1.0</b>	12 well comb for 0911, 1mm thick		
<b>80-0911-C12-1.5</b>	12 well comb for 0911, 1.5mm thick		





**Horizontal  
RapidCast™ Mini Gel  
Systems 12 x 14cm  
Galileo™ 80-1214**

Is our most popular mini-gel unit.  
A combination of outstanding versatility and value  
make it an ideal personal gel device.

Three unit configurations are available including the new 80-1214-R which includes integrated automatic buffer recirculation for improved performance. Also available are the classic 80-1214 unit and the 801214-BEP device which includes buffer recirculation ports for connection to external buffer recirculation devices. All three systems feature Galileo's RapidCast™ casting system for tapeless casting in the buffer chamber base or in Galileo's optional casting frame.

Unit	80-1214	80-1214-BEP <sup>1</sup>	80-1214-R <sup>2</sup>
Gel width (cm)	12	12	12
Gel run length (cm)	14	14	14
Max full run samples	25	25	25
Maximum samples	100	100	100
Comb slots	4	4	4

<sup>1</sup> unit includes buffer recirculation ports for connection to external recirculation devices.

<sup>2</sup> unit includes an automatic integrated buffer recirculation system for improved gel performance.



### RapidCast™ gel casting technology for mini gel units

RapidCast™ Technology uses trays with incorporated end gaskets, to easily cast gels in the gel unit base  
Turn tray across gel platform to seal and pour  
Align with platform to run No tape! No Leaks!  
Fast & Efficient

### Ordering Information

Catalog #	Description
<b>UNITS</b>	
<b>80-1214</b>	Rapid Complete system, includes 12x14 cm gasketed tray + 12 & 20 tooth combs
<b>80-1214-BEP</b>	80-1214 System, plus Buffer Exchange Ports
<b>80-1214-R</b>	80-1214 System plus integral buffer recirculation
<b>ACCESSORIES</b>	
<b>80-1214-C8-1.0</b>	8 wll comb for 1214, 1 mm thick
<b>80-1214-C8-1.5</b>	8 well comb for 1214, 1.5mm thick
<b>80-1214-CMT9-1.0</b>	9 well comb for 1214 1 mm tick, Microtiter 1X format
<b>80-1214-CMT9-1.5</b>	9 well comb for 1214 1.5 mm tick, Microtiter 1X format
<b>80-1214-CMT12-1.0</b>	12 well comb for 1214 1 mm tick, Microtiter 1X format
<b>80-1214-CMT12-1.5</b>	12 well comb for 1214 1.5 mm tick, Microtiter 1X format
<b>80-1214-C16-1.0</b>	16 well comb for 1214 1 mm thick
<b>80-1214-C16-1.5</b>	16 well comb for 1214 1.5 mm thick
<b>80-1214-C20-1.0</b>	20 well comb for 1214 1 mm thick
<b>80-1214-C20-1.5</b>	20 well comb for 1214 1.5 mm thick
<b>80-1214-C24-1.0</b>	24 well comb for 1214 1 mm thick
<b>80-1214-C24-1.5</b>	24 well comb for 1214 1.5 mm thick
<b>80-1214-CMT25-1.0</b>	25 well comb for 1214 1 mm thick, Microtiter 2X format
<b>80-1214-CMT25-1.5</b>	25 well comb for 1214 1.5 mm thick, Microtiter 2X format
<b>80-1214-CPREP</b>	Prep comb with 2 teeth, 1.5 mm thick

**ExpressCast™ Midi Gel Systems Galileo Bioscience 81-1515 & 81-2314**

This system features Galileo's ExpressCast™ casting system for tapeless casting. Galileo's new ExpressCast™ 80-1515 system is an ideal midi-gel unit for moderate thru-put sample analysis.

Unit	81-1515	81-2314
<b>Gel Width</b>	15 cm	23 cm
<b>Gel run length</b>	15 cm	14 cm
<b>Max full run simples</b>	40	50
<b>Maximum simples</b>	160	200
<b>Comb Slots</b>	4	4

1515



2314



	81-1515	81-2314
Unit dimensions	21W x 26 x 9.5H cm	32 W x 26L x 10.5H cm
Gel size (cm)	15 W x 15 L cm	23 W X 14 L
buffer capacity	1020ml	1700 ml
gel volumen (0.5 cm thick)	112 ml	161 ml
max sample capacity	160	200
max samples/full length run	40	50
electrode separation length	24 cm	23.3 cm
standard features	epoxy-sealed connections   platinum electrodes   leveling screws & bubble level	
safety features	safety cover   sheathed power leads	
included tray	ExpressCast   UV transmissible   fluorescent ruler   4 comb slots	
included combs	1.5mm, 2x17 & 2x34 well	1.5mm, 4 x 50-well
Options	optional buffer ports	- - -
running conditions	120 volts   5 volts/cm of electrode separation or 110V   constant voltage (200V max voltage)	

**ExpressCast™ gel casting technology**


ExpressCast™ ExpressCast™ trays include end slots into which fit  
 Gasketed end gates, for easy in-tray gel casting.  
 Fit end gates into trays for a quick and leak-proof seal.  
 No tape! No Leaks!  
 Fast & Efficient

**Ordering Information**

Catalog #	Description
<b>UNITS</b>	
<b>81-1515</b>	ExpressCast Complete System, includes 4-slot 15x15cm tray + 4 combs
<b>81-2314</b>	ExpressCast Gel System, Includes 4-slot 23x14 cm tray and 2 ea 25 & 50 tooth combs
<b>COMBS FOR 81-1515 UNIT</b>	
<b>81-1515-C10-1.0</b>	10 well comb for 1515, 1mm thick
<b>81-1515-C10-1.5</b>	10 well comb for 1515, 1.5mm thick
<b>81-1515-C20-1.0</b>	20 well comb for 1515, 1mm thick
<b>81-1515-C20-1.5</b>	20 well comb for 1515, 1.5mm thick
<b>81-1515-C40-1.0</b>	40 well comb for 1515, 1mm thick
<b>81-1515-C40-1.5</b>	40 well comb for 1515, 1.5mm thick
<b>81-15-CMT17-1.0</b>	1X Microtiter Comb 1.0 mm thick / 17 tooth
<b>81-15-CMT17-1.5</b>	1X Microtiter Comb 1.5 mm thick / 17 tooth
<b>81-15-CMT34-1.0</b>	2X Microtiter Comb 1.0 mm thick/34 tooth

Catalog #	Description
<b>COMBS FOR 81-2314 UNIT</b>	
<b>81-23-CMT25-1.0</b>	25 well comb for 23 cm wide units, 1.0 mm thick, Microtiter 1x format
<b>81-23-CMT25-1.5</b>	25 well comb for 23 cm wide units, 1.5 mm thick, Microtiter 1x format
<b>81-23-CMT26-1.0</b>	26 well (24+2) comb for 23 cm wide units, 1 mm thick, Microtiter 1X format
<b>81-23-CMT26-1.5</b>	26 well (24+2) comb for 23 cm wide units, 1.5 mm thick, Microtiter 1X format
<b>81-23-CMT50-1.0</b>	50 well comb for 23 cm wide units, 1 mm thick, Microtiter 2X format
<b>81-23-CMT50-1.5</b>	50 well comb for 23 cm wide units, 1.5 mm thick, Microtiter 2X format
<b>81-23-MT25-SLG</b>	Sample Loading Guide for use with 25 well comb
<b>81-23-MT50-SLG</b>	Sample Loading Guide for use with 50 well comb
<b>81-23-CWALL</b>	Wall comb, 1.5 mm thick, fits all 23.5 cm trays
<b>81-23-DAM</b>	Casting Dam for 23 cm Wide Gel Trays
<b>ACCESORIES FOR 81-2314 UNIT</b>	
<b>81-2314-EXGT</b>	ExpressCast Gel Tray for 23x14 cm gels with 4 comb slots & gasketed end gates
<b>81-23-EG</b>	Replacement End Gates with gaskets, set of 2
<b>81-23-GSK</b>	Replacement Gasket, set of 2
<b>80-2314-GT</b>	Flush Cut UVT gel tray with 4 comb slots, 23.5x14 cm

**ExpressCast™ gel casting technology:**

ExpressCast™ gel unit trays incorporate gasketed end gates for quick, easy, and tape-less casting.

**Integrated automatic buffer recirculation:**

Select units now available with integrated automatic buffer recirculation. No external tubing or pumps required!

**Galileo Maxi Systems****High Performance**

Exceptional resolution.

Platinum electrodes configured to provide uniform field for straight runs.

Multiple comb slot options for a wide range of sample and run-length configurations.

**Convenient & Versatile**

UV transmissible gel trays with built-in fluorescent rulers. Large units feature trays with multiple comb slots for versatility.

Machined finger grooves on the tray sides for easy and sure handling.

Wide range of comb configurations, including multi-channel capability.

Selected units available with buffer recirculation capabilities.

Combs specifications clearly marked on each comb.

Optional casting methods for flexibility, convenience and speed.

**Maxi Horizontal Systems**

Galileo large gel systems are designed for high resolution of complex analytes. All units feature long run lengths, with medium to high capacity units available.

**ExpressCast™ Maxi Systems Feature:**

Buffer chamber with color coded, sealed platinum electrodes and non-slip rubber feet. UV transmissible gel tray with ExpressCast gasketed end gates, and 4 to 14 comb slots. Safety cover with attached retractable-sheath power cords. Systems include 3-4 combs of your choice. Wide range of other combs and accessories available.

**Four sizes to fit your needs:**

Unit	81-1525	81-2025 <sup>1</sup>	81-2325 <sup>1</sup>	81-2340
Gel width (cm)	15	20	23	23
Gel run length (cm)	25	25	25	40
Max Full-Run Samples	28	42	50	50
Maximum Samples	112	168	500	600
Comb slots	4	6	12	14

<sup>1</sup> these units unit available with automatic buffer recirculation.

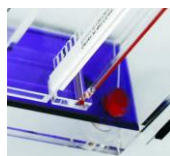
**Safe & Reliable**

High quality 9mm thick rugged acrylic construction, resists cracking and warping. Your safety ensured with interlocking lid, protected sockets and permanently attached power cords.

Epoxy sealed electrode connections, resist corrosion and leaks.

Gold plated banana plugs.

Meets or exceeds IEC1010-1 standards.

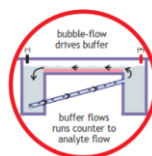
**ExpressCast™ gel casting technology**

ExpressCast™ trays include end slots into which fit end gates, gasketed for easy in-tray gel casting.

Fit end gates into trays for a quick and leak-proof seal.

No tape! No Leaks!

Fast & Efficient

**Integrated buffer recirculation (available on selected units)**

Galileo automatic buffer recirculation reduces detrimental ion and pH gradients in your buffer, providing even migration for long running gels.

Hydrogen bubbles created at the cathode a canted recirculation tube, providing a gentle, reliable and self-contained recirculation system that is self-regulating and requires no additional tubing or equipment.





## ExpressCast™ Maxi Gel System

	81-1525	81-2025	81-2325	81-2340
<b>Unit dimensions</b>	23.5W x 37.5L x 10.5H cm	29 W x 37.5 L x 10.5H cm	32W x 37.5 x 10.5H	32W x 53L x 10.5H
<b>Gel size (cm)</b>	15 W x 25 L cm	20 W X 25 L	23W x 25L	23W x 40L
<b>buffer capacity</b>	1850ml	2300 ml	3000 ml	4,500 ml
<b>gel volumen (0.5 cm thick)</b>	188 ml	250 ml	294 ml	460 ml
<b>max sample capacity</b>	160	168	500	600
<b>max samples/full length run</b>	40	42	50	50
<b>electrode separation length</b>	34.3 cm	34.3 cm	34.3 cm	49.5 cm
<b>Standard features</b>	epoxy-sealed connections platinum electrodes leveling screws & level	epoxy-sealed connections platinum electrodes leveling screws & bubble level	epoxy-sealed connections platinum electrodes leveling screws & bubble level	epoxy-sealed connections platinum electrodes leveling screws & level
<b>Safety Features</b>	safety cover sheathed power leads	safety cover sheathed power leads	leveling screws & bubble level	ncludes buffer ports safety cover sheathed power leads
<b>Casting System</b>	Galileo ExpressCast gasketed end gates	Galileo ExpressCast gasketed end gates	- - -	- - -
<b>Included Tray</b>	UV transmissible 4 comb slots	UV transmissible 6 comb slots	UV transmissible 14 comb slots	UV transmissible 12 comb slots
<b>Included Combs</b>	1.5mm, 2x17 & 2x34 well, 4 combs total	1.5mm, 16, 24 & 36 well	1.5mm, 2ea 25 & 50 well	1.5mm, 2ea 25 & 50 well
<b>Options</b>	optional buffer ports	optional buffer ports or automatic buffer recirculation	optional buffer ports or NEW automatic buffer recirculation	- - -
<b>Running Conditions</b>	170 volts 5 volts/cm of electrode separation or 110V constant voltage (200V max voltage)	170 volts 5 volts/cm of electrode separation or 110V constant voltage (200V max voltage)	170 volts 5 volts/cm of electrode separation or 110V constant voltage (200V max voltage)	200 volts 5 volts/cm of electrode separation or 110V constant voltage (200V max voltage)

## Ordering Information

Catalog #	Description
<b>UNITS</b>	
<b>81-1525</b>	ExpressCast Gel System for 15x25 cm gels, includes 4-slot UVT Tray & 4 Coms
<b>81-1525-BEP</b>	81-1525 System, plus Buffer Exchange Ports
<b>COMBS FOR 81-1525 UNIT</b>	
<b>81-15-C10-1.0</b>	10 well comb for 1525, 1 mm thick
<b>81-15-C10-1.5</b>	10 well comb for 1525, 1.5mm thick
<b>81-15-C20-1.0</b>	20 well comb for 1525, 1mm thick
<b>81-15-C20-1.5</b>	20 well comb for 1525, 1.5mm thick
<b>81-15-C40-1.0</b>	40 well comb for 1525, 1mm thick
<b>81-15-C40-1.5</b>	40 well comb for 1525, 1.5mm thick
<b>81-15-CMT17-1.0</b>	1X Microtiter Comb 1.0 mm thick / 17 tooth
<b>81-15-CMT17-1.5</b>	1X Microtiter Comb 1.5 mm thick / 17 tooth
<b>81-15-CMT34-1.0</b>	2X Microtiter Comb 1.0 mm thick/34 tooth
<b>81-15-CMT34-1.5</b>	2X Microtiter Comb 1.5 mm/34 tooth
<b>ACCESSORIES:</b>	
<b>81-1525-UVT</b>	ExpressCast UVT Gel Tray w/end gates, 15x25 cm gel size
<b>81-1520-UVT</b>	ExpressCast UVT Gel Tray w/end gates, 15x20 cm gel size
<b>81-15-DAM</b>	Casting Dam for 15 cm Wide Gel Trays
<b>81-15-GSK</b>	Replacement gaskets, Set of 2

Catalog #	Description
<b>UNITS</b>	
<b>81-2025</b>	ExpressCast Gel System, includes 6-slot 20x25cm gel tray and 16, 24 & 36 tooth combs
<b>81-2025-BEP</b>	81-2025 System, plus Buffer Exchange Ports
<b>81-2025-R</b>	81-2025 System, plus integral buffer Recirculation
<b>COMBS FOR 81-1525 UNIT</b>	
<b>81-20-C8-1.0</b>	8 Tooth comb for 2025, 1 mm thick
<b>81-20-C8-1.5</b>	8 Tooth comb for 2025, 1.5 mm thick
<b>81-20-C12-1.0</b>	12 Tooth comb for 2025, 1mm thick
<b>81-20-C12-1.5</b>	12 Tooth comb for 2025, 1.5 mm thick
<b>81-20-C16-1.0</b>	16 Tooth comb for 2025, 1 mm thick
<b>81-20-C16-1.5</b>	16 Tooth comb for 2025, 1.5 mm thick
<b>81-20-C20-1.0</b>	20 Tooth comb for 2025, 1 mm thick
<b>81-20-C20-1.5</b>	20 Tooth comb for 2025, 1.5 mm thick
<b>81-20-C24-1.0</b>	24 Tooth comb for 2025, 1 mm thick
<b>81-20-C24-1.5</b>	24 Tooth comb for 2025, 1.5 mm thick
<b>81-20-C28-1.0</b>	28 Tooth comb for 2025, 1 mm thick
<b>81-20-C28-1.5</b>	28 Tooth comb for 2025, 1.5 mm thick
<b>81-20-C32-1.0</b>	32 Tooth comb for 2025, 1 mm thick
<b>81-20-C32-1.5</b>	32 Tooth comb for 2025, 1.5 mm thick
<b>81-20-C36-1.0</b>	36 Tooth comb for 2025, 1 mm thick
<b>81-20-C36-1.5</b>	36 Tooth comb for 2025, 1.5 mm thick
<b>81-20-CMT18-1.0</b>	18 well comb for 2025, 1mm thick, Microtiter 1X format
<b>81-20-CMT18-1.5</b>	18 well comb for 2025, 1.5 mm thick, Microtiter 1X format

Catalog #	Description
<b>CONTINUE COMBS FOR 81-2025</b>	
<b>81-20-CMT21-1.0</b>	21 well comb for 2025, 1mm thick, Microtiter 1X format
<b>81-20-CMT21-1.5</b>	21 well comb for 2025, 1.5mm thick, Microtiter 1X format
<b>81-20-CMT42-1.0</b>	42 well comb for 2025, 1mm thick, Microtiter 2X format
<b>81-20-CMT42-1.5</b>	42 well comb for 2025, 1.5mm thick, Microtiter 2X format
<b>81-20-CPREP</b>	Prep comb with 2 teeth, 1.5mm thick
<b>81-20-CWALL</b>	Wall comb, 1.5mm thick
<b>81-20-DAM</b>	Casting Dam for 20cm Wide Gel Trays
<b>ACCESSORIES:</b>	
<b>81-2025-EXGT</b>	ExpressCast Gel Tray for 20x25cm gels with 6 comb slots & gasketed end gates
<b>81-2025-EG</b>	Replacement End Gates with gaskets, set of 2
<b>81-2025-GSK</b>	Replacement gaskets, Set of 2

Ordering Information

81-2340 ExpressCast™ Maxi Gel Systems

Catalog #	Description
UNITS	
81-2340-BEP	ExpressCast Gel System, includes 12-slot 23x40cm tray and 2ea 25 & 50 tooth combs, plus integrated buffer recirculation ports.
COMBS FOR 81-2340 UNIT	
81-23-CMT25-1.0	25 well comb for 23cm wide units, 1mm thick, Microtiter 1X format
81-23-CMT25-1.5	25 well comb for 23cm wide units, 1.5mm thick, Microtiter 1X format
81-23-CMT26-1.0	26 well (24+2) comb for 23cm wide units, 1mm thick, Microtiter 1X format
81-23-CMT26-1.5	26 well (24+2) comb for 23cm wide units, 1.5 mm thick, Microtiter 1X format
81-23-CMT50-1.0	50 well comb for 23cm wide units, 1mm thick, Microtiter 2X format
81-23-CMT50-1.5	50 well comb for 23cm wide units, 1.5 mm thick, Microtiter 2X format
81-23-MT25-SLG	Sample Loading Guide for use with 25 well comb
81-23-MT50-SLG	Sample Loading Guide for use with 50 well comb
81-23-CWALL	Wall comb, 1.5mm thick, fits all 23.5cm trays
81-23-DAM	Casting Dam for 23cm Wide Gel Trays
ACCESSORIES:	
81-2340-EXGT	ExpressCast Gel Tray for 23x40cm gels with 12 comb slots & gasketed end gates
81-23-EG	Replacement End Gates with gaskets, set of 2
81-23-GSK	Replacement gaskets, Set of 2

Related Products



**TBE 10X Liquid Solution,  
Ultra Pure Grade Solution,  
4 Liters/Unit  
Apex Bioresearch Products  
20-196 Page 84**

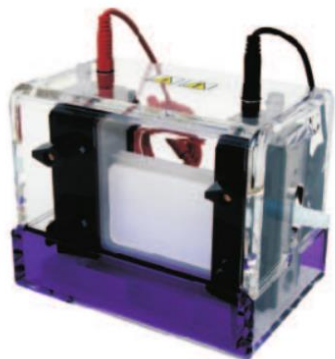


**TAE 10X Liquid  
Concentrate, Ultra Pure  
Grade Solution, 1.6  
Liters/Unit  
Apex Bioresearch Products  
20-195 Page 84**



**TBE Buffer, 10X Dry Pack,  
1 Pack/Unit Apex  
Bioresearch Products 20-  
131 Page 86**





### Reflection Twin Vertical Gel Systems Galileo Bioscience™

High Performance  
 Exceptional resolution  
 Rugged trouble-free construction  
 All units run one or two gels  
 1010 unit compatible with most pre-cast gels  
 Rapid and efficient cast-in-place gel casting system  
 Unique electrode configuration for straight, rapid runs  
 Efficient temperature regulation prevents band distortion

### Convenient & Versatile

Upper buffer chamber acts as heat sink to provide uniform temperature across gel and reduce smiling.  
 Units available with ports for attachment to external cooling systems.  
 Wide range of comb configurations, including multi-channel capability.  
 Reliable clamping system for no-leak casting and running.  
 Optional gel caster for pre-casting gels while system is in use.  
 Wide range of combs and accessories

### Safe & Reliable

High quality, rugged acrylic construction, resists cracking and warping.  
 Your safety ensured with interlocking lid.  
 Corrosion resistant contacts and gold plugs for years of reliable service.  
 Meets or exceeds IEC1010-1 standards.

#### Reliable clamping system



#### 3-Cathode power system



### Four sizes to fit your needs:

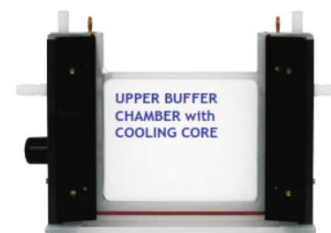
Unit	85-1010	85-2010	85-1614	85-2020
Gel width (cm)	10	20	16	20
Gel run length (cm)	10	10	14	20
Maximum Samples*	15/30	36/72	24/48	25/50

\* Maximum per gel / Maximum per (2-gel) unit run.

### Galileo vertical systems comparison chart

UNIT	85-1010	85-2010	85-1614	85-2020
Description	Mini Twin	Wide Mini Twin	Midi Twin	Maxi Twin
System Dimensions	14Hx17Wx12D	15Hx28Wx13D	18Hx24Wx14D	24Hx30Wx16D
Gel Dimensions	10 W x 8-10 L	20 W x 8-10 L	16 W x 14-16 L	20W x 20 L
Buffer Volume	400 ml	800 ml	700 ml	1300 ml
Gel Volume	6-15 ml	15-30 ml	14-27 ml	25-49 ml
Max Samples*gel	15	36	24	25
Max samples/run	30	72	48	50
Water cooling ports	Optional	Optional	Yes	Yes

### Galileo vertical systems components



Casting base attaches to Upper Buffer Chamber and provides a secure bottom seal for casting. Optional casting stand also available for casting gels while unit is in use.

**Reflection 85-1010 Twin Mini Vertical Gel System, GALILEO BIOSCIENCE™**

High Performance  
 Exceptional resolution.  
 Rugged trouble-free construction.  
 All units run one or two gels.  
 Unit compatible with most pre-cast gels.  
 Rapid and efficient gel casting system.  
 Unique electrode configuration for straight, rapid runs.  
 Efficient temperature regulation prevents band distortion.  
 Wide range of combs and accessories available.  
 Optional gel cooling ports available: (WCS sytem).

Unit	85-1010
<b>Gel Width</b>	10 cm
<b>Gel run length</b>	10 cm
<b>Maximum samples*</b>	15/30

\*Maximum per gel / Maximum per (2-gel) unit run.



<b>Components</b>	upper buffer chamber (UBC) with 3 platinum electrodes lower buffer chamber (LBC) with precision guides for UBC safety-interlock lid with attached retractable-sheathed leads casting base (CB) blocking plate for running one gel replacement gasket set for UBC replacement gasket set for CB
<b>water cooled UBC</b>	Optional
<b>glass plates</b>	4 plain glass plates 2 notched glass plates
<b>aluminum plates</b>	2 notched alumina plates
<b>Combs</b>	(2) 0.8mm x 10-well
<b>Side Spacers</b>	(4) 0.8mm spacers

<b>System Dimensions</b>	14H x 17W x 12D
<b>Gel Dimensiones</b>	10 W x 8 -10 L
<b>Buffer Volume</b>	400 ml
<b>Gel Volume</b>	6-15 ml
<b>Max Samples/gel</b>	15
<b>Max Samples/run</b>	30
<b>Maximum Voltage</b>	600 V
<b>current @constant</b>	Vmax 15-35mA per gel
<b>Run Time</b>	30-60 min

**Ordering Information**

Catalog #	Description
<b>UNITS</b>	
<b>85-1010-NCS</b>	Reflection Mini Twin Vertical System w/out water cooling
<b>85-1010-WCS</b>	Reflection Mini Twin Vertical System w/ water cooling
<b>COMBS</b>	
<b>85-1010-C6-0.8</b>	6 Well Comb for 1010, 0.8mm thick
<b>85-1010-C6-1.5</b>	6 Well Comb for 1010, 1.5mm thick
<b>85-1010-C8-0.8</b>	8 Well Comb for 1010, 0.8mm thick
<b>85-1010-C8-1.5</b>	8 Well Comb for 1010, 1.5mm thick
<b>85-1010-C10-0.8</b>	10 Well Comb for 1010, 0.8mm thick
<b>85-1010-C10-1.5</b>	10 Well Comb for 1010, 1.5mm thick
<b>85-1010-C12-0.8</b>	12 Well Comb for 1010, 0.8mm thick
<b>85-1010-C12-1.5</b>	12 Well Comb for 1010, 1.5mm thick
<b>85-1010-C15-0.8</b>	15 Well Comb for 1010, 0.8mm thick
<b>85-1010-C15-1.5</b>	15 Well Comb for 1010, 1.5mm thick
<b>85-1010-CMT9-0.8</b>	9 Well Comb for 1010, 0.8mm thick Microtiter 1X format
<b>85-1010-CMT9-1.5</b>	9 Well Comb for 1010, 1.5 mm thick Microtiter 1X format
<b>85-1010-CMT-0.8</b>	15 Well Comb for 1010, 0.8mm thick, Microtiter 2X format
<b>85-1010-CMT-1.5</b>	15 Well Comb for 1010, 1.5mm thick, Microtiter 2X format

Catalog #	Description
<b>ACCESORIES</b>	
<b>85-1010-UBC-NC</b>	Non-cooled Upper Buffer chamber only
<b>85-1010-UBC-WC</b>	Water-cooled upper buffer Chamber only
<b>85-1010-GCB</b>	Gel Casting Base, Use with Upper Buffer Chamber
<b>85-1010-GCS</b>	Gel Casting Stand, works without Upper Buffer Chamber
<b>85-1010-G10NG</b>	Notched glass Plate, 10cmx10cmx0.24cm thick
<b>85-1010-G10PG</b>	Plain glass Plate, 10cmx10cmx0.24cm thick
<b>85-1010-BPL</b>	Blocking Plate for runing a single gel
<b>85-1010-G10NA</b>	Notched alumina backer plate for improved cooling
<b>85-1010-SP-0.8</b>	Side Spacers, 0.8mm thick, 2 per set
<b>85-1010-SP-1.5</b>	Side Spacers, 1.5mm thick, 2 per set
<b>85-1010-WK</b>	Wing knobs, pk of 4, (Fits all vertical systems)
<b>85-1010-CL</b>	Replacement Clamps, pk of 2
<b>85-1010-CBGSK</b>	Replacement Gasket Set, Casting Base, pk of 2
<b>85-1010-GSK</b>	Replacement Gasket Set, Upper Buffer Chamber, pk of 2





**Reflection 85-2010 Wide Mini Twin Vertical Gel Systems****Galileo Bioscience™****High Performance**

Runs one or two gels.  
 Rugged trouble-free construction.  
 Wide format  
 Unique electrode configuration for straight, rapid runs.  
 Efficient temperature regulation prevents band distortion.  
 accommodates large sample numbers.  
 Rapid and efficient gel casting system.  
 Wide range of combs and accessories available.

<b>Components</b>	upper buffer chamber (UBC) with 3 platinum electrodes lower buffer chamber (LBC) with precision guides for UBC safety-interlock lid with attached retractable-sheathed leads casting base (CB) blocking plate for running single gel replacement gasket set for UBC replacement gasket set for CB
<b>water cooled UBC</b>	Optional
<b>glass plates</b>	4 plain glass plates 4 notched glass plates
<b>Combs</b>	(2) 0.8mm, 15-well (2) 0.8mm, 20-well
<b>Side Spacers</b>	(8) 0.8mm spacers

Unit	85-2010
<b>Gel Width</b>	20 cm
<b>Gel run length</b>	10 cm
<b>Maximum samples*</b>	36/72

\*Maximum per gel / Maximum per (2-gel) unit run.

<b>System Dimensions</b>	15H x 28W x 13D
<b>Gel Dimensiones</b>	20W x 8-10L
<b>Buffer Volume</b>	800 ml
<b>Gel Volume</b>	15-30 ml
<b>Max Samples/gel</b>	36
<b>Max Samples/run</b>	72
<b>Maximum Voltage</b>	600 V
<b>current @constant</b>	15-45mA per gel
<b>Run Time</b>	30-90 min

**Ordering Information**

Catalog #	Description
<b>UNITS</b>	
<b>85-2010-NCS</b>	Reflection Twin Wide Vertical System w/out water cooling
<b>85-2010-WCS</b>	Reflection Mini Twin Vertical System w/ water cooling
<b>COMBS</b>	
<b>85-2010-C10-0.8</b>	10 Well Comb for 2010, 0.8mm thick
<b>85-2010-C10-1.5</b>	10 Well Comb for 2010, 1.5mm thick
<b>85-2010-C15-0.8</b>	15 Well Comb for 2010, 0.8mm thick
<b>85-2010-C15-1.5</b>	15 Well Comb for 2010, 1.5mm thick
<b>85-2010-CMT-0.8</b>	20 Well Comb for 2010, 0.8mm thick
<b>85-2010-CMT-1.5</b>	20 Well Comb for 2010, 1.5mm thick
<b>85-2010-C25-0.8</b>	25 Well Comb for 2010, 0.8mm thick
<b>85-2010-C25-1.5</b>	25 Well Comb for 2010, 1.5mm thick
<b>85-2010-CMT18-0.8</b>	18 Well Comb for 2010, 0.8mm thick Microtiter 1X format
<b>85-2010-CMT18-1.5</b>	18 Well Comb for 2010, 1.5mm thick Microtiter 1X format
<b>85-2010-CMT36-0.8</b>	36 Well Comb for 2010, 0.8mm thick Microtiter 2X format
<b>85-2010-CMT36-1.5</b>	36 Well Comb for 2010, 1.5mm thick Microtiter 2X format

Catalog #	Description
<b>ACCESSORIES</b>	
<b>85-2010-UBC-NC</b>	Non-cooled Upper Buffer chamber only
<b>85-2010-UBC-WC</b>	Water-cooled upper buffer Chamber only
<b>85-2010-UCB</b>	Gel Casting Base, Use with Upper Buffer Chamber
<b>85-2010-GCS</b>	Gel Casting Stand, for casting 2x20 cm W gels
<b>85-2010-G10NG</b>	Notched glass Plate, 20cmx10cmx0.32cm thick
<b>85-2010-G10PG</b>	Plain glass Plate, 20cmx10cmx0.32cm thick
<b>85-2010-BPL</b>	Blocking Plate for running a single gel
<b>85-2010-SP-0.8</b>	Side Spacers, 0.8mm thick, 2 per set
<b>85-2010-SP-1.5</b>	Side Spacers, 1.5mm thick, 2 per set
<b>85-2010-CL</b>	Replacement Clamps, pk of 2
<b>85-2010-CBGSK</b>	Replacement Gasket Set, Casting Base, pk of 2
<b>85-2010-GSK</b>	Replacement Gasket Set, Upper Buffer Chamber, pk of 2

**Related Product**

**INSTA-PAGE ACRYLAMIDE 30% SOLUTION**  
**19:1 IBI SCIENTIFIC IB70001**

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## Reflection Midi Twin Vertical Gel Systems

### Galileo Bioscience™ 85-1614

Exceptional resolution.  
 Gel cooling ports standard.  
 All units run one or two gels.  
 Rapid and efficient gel casting system.  
 Unique electrode configuration for straight, rapid runs.  
 Efficient temperature regulation prevents band distortion.  
 Rugged trouble-free construction.  
 Wide range of combs and accessories available.

<b>Components</b>	water cooled upper buffer chamber (UBC) with 3 platinum electrodes lower buffer chamber (LBC) with precision guides for UBC safety-interlock lid with attached retractable-sheathed leads casting base (CB) blocking plate for running one gel replacement gasket set for UBC replacement gasket set for CB
<b>water cooled UBC</b>	Yes
<b>glass plates</b>	4 plain glass plates 4 notched glass plates
<b>Combs</b>	2) 1.5mm x 10-well (2) 1.5mm x 15-well
<b>Side Spacers</b>	(8) 1.5 mm spacers

<b>Unit</b>	<b>85-1614</b>
<b>Gel Width</b>	16 cm
<b>Gel run length</b>	14 cm
<b>Maximum samples*</b>	24/48

\*Maximum per gel / Maximum per (2-gel) unit run.

<b>System Dimensions</b>	18H x 24W x 14D
<b>Gel Dimensiones</b>	16W x 14-16L
<b>Buffer Volume</b>	700 ml
<b>Gel Volume</b>	14-27 ml
<b>Max Samples/gel</b>	24
<b>Max Samples/run</b>	48
<b>Maximum Voltage</b>	600 V
<b>current @constant</b>	15-50mA per gel
<b>Run Time</b>	60-120 min



## Ordering Information

Catalog #	Description
<b>UNITS</b>	
<b>85-1614-WCS</b>	Reflection Midi Twin Vertical System w/ water cooling
<b>COMBS</b>	
<b>85-1614-C10-0.8</b>	10 Well Comb for 1614, 0.8mm thick
<b>85-1614-C10-1.5</b>	10 Well Comb for 1614, 1.5mm thick
<b>85-1614-C15-0.8</b>	15 Well Comb for 1614, 0.8mm thick
<b>85-1614-C15-1.5</b>	15 Well Comb for 1614, 1.5mm thick
<b>85-1614-CMT-0.8</b>	20 Well Comb for 1614, 0.8mm thick
<b>85-1614-CMT-1.5</b>	20 Well Comb for 1614, 1.5mm thick
<b>85-1614-C24-0.8</b>	24 Well Comb for 1614, 0.8mm thick
<b>85-1614-C24-1.5</b>	24 Well Comb for 1614, 1.5mm thick
<b>85-1614-CPREP</b>	Prep comb with 2 Wells, 1.5 mm thick

Catalog #	Description
<b>ACCESSORIES</b>	
<b>85-1614-UBC-WC</b>	Water-cooled upper buffer Chamber only
<b>85-1614-GCB</b>	Gel Casting Base, Use with Upper Buffer Chamber
<b>85-1614-GCS</b>	Gel Casting Stand for casting 2x16 cm W gels
<b>85-1614-G14NG</b>	Notched glass Plate, 16 cm W x14 cmx0.32cm thick
<b>85-1614-G14PG</b>	Plain glass Plate, 16cm w x 14 cm L x 0.32 cm thick
<b>85-1614-BPL</b>	Blocking Plate for running a single gel
<b>85-1614-SP-0.8</b>	Side Spacers, 0.8mm thick, 2 per set
<b>85-1614-SP-1.5</b>	Side Spacers, 1.5mm thick, 2 per set
<b>85-1614-CL</b>	Replacement Clamps, pk of 2
<b>85-1614-CBGSK</b>	Replacement Gasket Set, Casting Base, pk of 2
<b>85-1614-GSK</b>	Replacement Gasket Set, Upper Buffer Chamber, pk of 2

## Related Products



**AMMONIUM PERSULFATE**  
**IBI SCIENTIFIC IB70080**  
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**BORIC ACID**  
**IBI SCIENTIFIC IB70096**  
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2020



## Reflection Maxi Twin Vertical Gel Systems Galileo Bioscience™ 85-2020

Exceptional resolution.  
Unit can run one or two gels  
Rugged trouble-free construction.  
Rapid and efficient gel casting system.  
Unique electrode configuration for straight, rapid runs.  
Efficient temperature regulation prevents band distortion.  
Wide range of combs and accessories available.  
Gel cooling ports standard.

<b>Components</b>	water cooled upper buffer chamber (UBC) with 3 platinum electrodes lower buffer chamber (LBC) with precision guides for UBC positioning safety-interlock lid with attached retractable-sheathed leads casting base (CB) blocking plate for running one gel replacement gasket set for UBC replacement gasket set for CB
<b>water cooled UBC</b>	Yes
<b>glass plates</b>	4 plain glass plates 4 notched glass plates
<b>Combs</b>	2) 1.5mm x 15-well (2) 1.5mm x 20-well
<b>Side Spacers</b>	(8) 1.5 mm spacers

<b>Unit</b>	<b>85-1614</b>
<b>Gel Width</b>	20 cm
<b>Gel run length</b>	20 cm
<b>Maximum samples*</b>	25/50

\*Maximum per gel / Maximum per (2-gel) unit run.

<b>System Dimensions</b>	24H x 30W x 16D
<b>Gel Dimensiones</b>	20W x 20L
<b>Buffer Volume</b>	1,300 ml
<b>Gel Volume</b>	25-49 ml
<b>Max Samples/gel</b>	25
<b>Max Samples/run</b>	50
<b>Maximum Voltage</b>	600 V
<b>current @constant</b>	15-75mA per gel
<b>Run Time</b>	60-180 min

## Ordering Information

Catalog #	Description
<b>UNITS</b>	
<b>85-2020-WCS</b>	Reflection Twin Maxi Vertical System w/ water cooling
<b>COMBS</b>	
<b>85-2020-C10-0.8</b>	10 Well Comb for 2020, 0.8mm thick
<b>85-2020-C10-1.5</b>	10 Well Comb for 2020, 1.5mm thick
<b>85-2020-C15-0.8</b>	15 Well Comb for 2020, 0.8mm thick
<b>85-2020-C15-1.5</b>	15 Well Comb for 2020, 1.5mm thick
<b>85-2020-CMT-0.8</b>	20 Well Comb for 2020, 0.8mm thick
<b>85-2020-CMT-1.5</b>	20 Well Comb for 2020, 1.5mm thick
<b>85-2020-C24-0.8</b>	24 Well Comb for 2020, 0.8mm thick
<b>85-2020-C25-1.5</b>	25 Well Comb for 2020, 1.5mm thick
<b>85-2020-C25-0.8</b>	25 Well Comb for 2020, 0.8mm thick
<b>85-2020-C24-1.5</b>	24 Well Comb for 2020, 1.5mm thick
<b>85-2020-CPREP</b>	Prep comb with 2 Wells, 1.5 mm thick

Catalog #	Description
<b>ACCESSORIES</b>	
<b>85-2020-UBC-WC</b>	Water-cooled upper buffer Chamber only
<b>85-2020-GCB</b>	Gel Casting Base, Use with Upper Buffer Chamber
<b>85-2020-GCS</b>	Gel Casting Stand for casting 2x20 cm W gels
<b>85-2020-G20NG</b>	Notched glass Plate, 20 cm W x 20 L cmx0.32cm thick
<b>85-2020-G14PG</b>	Plain glass Plate, 20 cm w x 20 cm L x 0.32 cm thick
<b>85-2020-BPL</b>	Blocking Plate for running a single gel
<b>85-2020-SP-0.8</b>	Side Spacers, 0.8mm thick, 2 per set
<b>85-2020-SP-1.5</b>	Side Spacers, 1.5mm thick, 2 per set
<b>85-2020-CL</b>	Replacement Clamps, pk of 2
<b>85-2020-CBGSK</b>	Replacement Gasket Set, Casting Base, pk of 2
<b>85-2020-GSK</b>	Replacement Gasket Set, Upper Buffer Chamber, pk of 2

**Vertical System Accessories**

Consistent with

Galileo's integrated system philosophy, a comprehensive range of accessories and supplies are available for all our vertical units.

**Glass plates**

Precision cut glass plates fit both Galileo and other devices.

**Gel spacers**

Precision thickness spacers for uniform gels and clean runs.

Blocking & alumina heat transfer plates

For single gel runs, blocking plates seal the non-used side of the upper buffer chamber. Alumina plates fit behind the inner glass to prevent gel hot spots and uneven runs.

**Gel Casters**

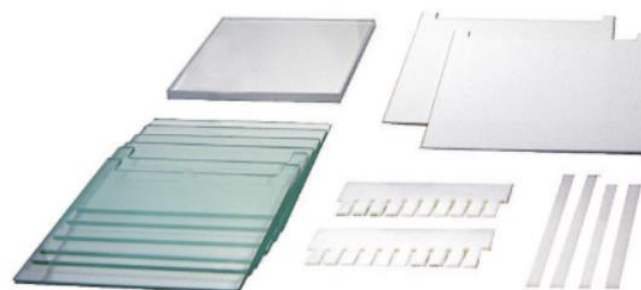
Gel casters allow pre-casting gels while the unit is running, and support casting two gels at once.

**Knobs & clamps**

Extra knobs and clamps for all Galileo vertical gel units.

**Combs**

Check for available combs under the individual unit listing that corresponds to the needed width. Combs are available in multi-channel configurations for quick gel loading.

**Ordering Information**

Catalog #	Description
<b>CASTERS</b>	
<b>85-1010-GSC</b>	Gel Casting Stand for casting 2x10cm W gels
<b>85-1614-GSC</b>	Gel Casting Stand for casting 2x16cm W gels
<b>85-2010-GSC</b>	Gel Casting Stand for casting 2x20cm W gels
<b>85-2020-GSC</b>	Gel Casting Stand for casting 2x20cm W gels
<b>COMBS</b>	
<b>85-1010-G10NG</b>	Notched glass Plate, 10cmx10cmx0.24cm thick
<b>85-1010-G10PG</b>	Plain glass Plate, 10cmx10cmx0.24cm thick
<b>85-2010-G10NG</b>	Notched glass Plate, 20cmx10cmx0.32cm thick
<b>85-2010-G10PG</b>	Plain glass Plate, 20cmx10cmx0.32cm thick
<b>85-1614-G14NG</b>	Notched glass Plate, 16cmx14cmx0.32cm thick
<b>85-1614-G14PG</b>	Plain glass Plate, 16cmx14cmx0.32cm thick
<b>85-2020-G20NG</b>	Notched glass Plate, 20cmx20cmx0.32cm thick
<b>85-2020-G20PG</b>	Plain glass Plate, 20cmx20cmx0.32cm thick
<b>KNOBS</b>	
<b>85-WKNB</b>	Wing Knobs for Clamps, set of 4

Catalog #	Description
<b>SPACERS</b>	
<b>85-1010-SP-0.8</b>	10cm Side Spacers, 0.8mm thick, 2 per set
<b>85-1010-SP-1.5</b>	10 cm Side Spacers, 1.5mm thick, 2 per set
<b>85-1614-SP-0.8</b>	14cm Side Spacers, 0.8mm thick, 2 per set
<b>85-1614-SP-1.5</b>	14cm Side Spacers, 1.5mm thick, 2 per set
<b>85-2020-SP-0.8</b>	20cm Side Spacers, 0.8mm thick, 2 per set
<b>85-2020-SP-1.5</b>	20cm Side Spacers, 1.5mm thick, 2 per set
<b>PLATES</b>	
<b>85-1010-G10NA</b>	Notched alumina backer plate for improved cooling, 10cmx10xmx0.10cm thick
<b>85-1010-BPL</b>	10x10x Blocking Plate for running a single gel
<b>85-1614-BPL</b>	16x14 Blocking Plate for running a single gel
<b>85-2010-BPL</b>	20x10 Blocking Plate for running a single gel
<b>85-2020-BPL</b>	20x20 Blocking Plate for running a single gel
<b>CLAMPS</b>	
<b>85-1010-CL</b>	Replacement Clamps, 2 per set
<b>85-1614-CL</b>	Replacement Clamps, 2 per set
<b>85-2010-CL</b>	Replacement Clamps, 2 per set
<b>85-2020-CL</b>	Replacement Clamps, 2 per set





## Semi-Dry Blotting Systems

*Choose Galileo Insight™ semi-dry systems for rapid and efficient molecular transfer*

### System Description –

Galileo semi-dry electroblotters provide quick and efficient transfer of nucleic acids and proteins from agarose or acrylamide gels. Since only the transfer "sandwich" of gel, membrane and blotting papers must be kept wet, much less buffer is required than traditional tank transfer systems. Solid plate style electrodes (stainless steel cathode and platinum anode) assure even and complete molecular transfer.

### G91-1010-SD system -

Low cost and quick transfer times make this system ideal for the rapid blotting of small pre-cast and self-cast gels. The 1010-SDBLT device will easily accommodate almost all pre-cast gels, and for many larger format pre-cast gels, once the stacking area of the gel is removed the "working" area of will also fit easily into the 1010-SDBLT device. System is supplied complete with power leads and a sample pack of our ultra-pure cotton fiber filter paper.

### G91-2020-SD system –

The larger format 2020 system is ideal for transfer of larger gels or simultaneous transfer of multiple smaller gels. System is supplied complete with power leads and a sample pack of our ultra-pure cotton fiber filter paper.



## Ordering Information

Ordering Information:		
UNITS		
Catalog #	Before	Description:
91-1010-SD	77.1010-SD	Insight Mini Semi Dry Electroblotter, 11x11cm
91-2020-SD	77.2020-SD	Insight Mini Semi Dry Electroblotter, 21x21cm
ACCESSORIES		
91-KNB	-----	Replacement Knobs, 3/Set
91-RPC	-----	Replacement Power Cords

## Galileo Bioscience™ brand Instrumentation

## Galileo Tank Style Blotting Systems

*A tank style blotting sytems for reliable and efficient molecular transfer of even "hard to transfer" compounds.*

### System description –

This tank style electroblotter provides reliable and efficient transfer of a wide range of protein coumpounds from acrylamide gels. Up to four gels can be transfered simultaneously. Platinum grid style electrodes and robust construction assure even and complete molecular transfer and long service life. System is supplied complete with power leads and four blotting cassettes. Also included is a sample pack of our ultra-pure cotton fiber filter paper.

**Galileo**  
**tank-style transfer systems**



## Technical Specifications

## Ordering Information

<b>Cassette Size:</b>	10cm x 10cm
<b>Transfer Area:</b>	9cm x 9cm
<b>Cassette Capacity:</b>	4
<b>Voltage Limit:</b>	0-150V
<b>Buffer Maximum:</b>	1300ml
<b>Recommended conditions for tank blotting:</b>	
<b>DNA Buffer:</b>	1 x TAE or 0.5 x TBE
<b>RNA Buffer:</b>	19.6mM phosphate, 5.4 mM citrate, pH 3.0 or 2.5mM sodium phosphate, pH 6.5
<b>Power:</b>	60 volts, 200mA, 4 hours at RT 125 volts, 400mA, 1.5 hours at 4°C 30 volts, 200mA overnight
<b>Protein Buffer:</b>	25mM Tris, 192mM glycine (pH 8.3), ± 20% methanol, 0.1%SDS
<b>Power</b>	70 volts, 200mA, 4 hours at RT 150 volts, 400mA, 1.5 hours at 4°C 30 volts, 75mA overnight

### Units

CATALOG #	BEFORE	DESCRIPTION
91-1010-TB	77.1010-TB	Insight Mini Tank Blotter with 4 cassettes
91-2020-TB		Insight Maxi 20x20cm Tank Blotter with 4 cassettes
<b>Accessories</b>		
CATALOG #		DESCRIPTION
91-1010-TBCS		Transfer Mini Cassette with Pads
91-1010-BPD		Replacement Blotting Pads, 4 per pack
91-2020-TBCS		Transfer Maxi 20x20cm Cassette with Pads
91-2020-BPD		Replacement Maxi Blotting Pads, 20x20cm, 4 per pack
91-RPC		Replacement Power Cords





### myVolt Touch Power Supply Benchmark Scientific

- Touch screen control
- Bright color display
- Dual orientation, auto rotating display
- High performance specifications:  
Max Voltage 300V  
Max Amperage 400mA  
Max Wattage: 100W

### Powerful and Capable

The Accuris myVolt™Touch is a work horse electrophoresis power supply, ideal for efficient separation of nucleic acids and proteins as well as basic western blotting applications. Four pairs of output jacks are wired in parallel for connecting multiple electrophoresis tanks. A color touch screen allows quick setting and monitoring of all run conditions, including run time, voltage, and current. Users can select "Constant Current" or "Constant Voltage" during an electrophoresis run, keeping the chosen parameter fixed as resistance changes. The dual orientation design with rotating display allows the myVolt Touch to be installed in the most convenient location, on a shelf or bench, saving valuable space.

### Touch Screen Control Panel

The myVolt Touch features a logical user interface. Setting up an electrophoresis run couldn't be easier; simply touch the parameter to select it, press the "up" and "down" arrows to adjust the value, and then touch "Start". All parameters are always displayed, with no need to toggle between Time, Voltage or Amperage. In addition the run status is always displayed.



Special Bundle Package:

myVolt Power Supply  
+  
myGel InstaView Tank

Order No: E1200-PSP

### Bundle Package Available with InstaView Gel Tank System

The InstaView Gel Tank System is a perfect compliment to the myVolt Touch Power Supply, allowing real time visualization of nucleic acid separation and also smart phone imaging of results. The InstaView includes a blue LED transilluminator, amber filter cover, and smartphone imaging enclosure.

### Technical Specifications

Output Setting:	Constant Voltage or Constant Current
Voltage Output:	10-300V (1V increments)
Current Output:	4 – 400mA (1 mA increments)
Max Wattage:	100W
Output Terminals:	4 pairs
Timer:	1 min. – 20hrs
Safety:	No load, load change, overload detection
Display:	2 x 2 in. color touchscreen
Dimensions:	8.5 x 6.3 x 4.0 in 21.5x 15.5 x 9.75 cm
Electrical:	100V to 230V, 50/60Hz

### Ordering Information

CATALOG #	DESCRIPTION
<b>E2301</b>	MyVolt Touch power supply, 300V, 400mA. Input: 100-240V, 50/60Hz, US plug*
<b>E1200-PSP</b>	Bundle Package: myVolt Touch + myGel InstaView™ Gel Tank with Blue LED Illuminator



The Accuris myVolt Mini is a compact electrophoresis power supply ideal for basic, constant voltage applications. Users can select constant 100V or 200V output, and the current can reach a maximum of 200mA.

Two sets of output jacks are available to connect up to 2 gel rigs and these small power supplies can securely be stacked for use with additional gel rigs.

- Compact and simple
- Choose constant 100V or 200V output
- Two pairs of output terminals



Two Voltage Settings

Stackable Design



### ENDURO™ power supplies

Intelligent Power Supplies for the Lab

The ENDURO™ Power Supplies are ideal for DNA, RNA and protein electrophoresis as well as blotting. They provide a high degree of sophistication and versatility yet are extremely easy to use. Three models are available to meet a variety of needs.

- Dependable performance, intelligent control
- Simple to program
- Constant voltage, current or wattage
- Compact, lightweight and stackable

Operating choices for the power supplies include constant voltage, constant amperage or constant wattage (250V model only) and timed or continuous operation. All operating parameters are set using the membrane keypad and displayed digitally on the backlit LCD. Safety features incorporated into the systems include automatic crossover, no load detection, sudden load change and over voltage protection. The units can also be programmed to restart in the event of a power disruption. The ENDURO™ 250V features a voltage range from 5 to 250V in 1V increments. Current is adjustable in 0.01A steps to a maximum of 3A. Wattage is adjustable in 1W steps up to 300W. The voltage range of the ENDURO™ 300V is from 2 to 300 V in 1V increments. The current is adjustable from 4 to 500mA in 1mA steps.

The newest addition is a mini 300V Power Supply and the PowerStack. This full featured power supply provides necessary power to run most horizontal gel and mini gel applications but is a smaller and more cost effective option. When used in conjunction with the PowerStack both bench space and power outlets are conserved.



### Ordering Information

Output Voltage:	100V/200V constant
Current Output:	Max. 200mA
Max Wattage:	40W
Output Terminals:	2 pairs
Weight:	0.9 lbs / 0.4 kg
Dimensions:	6.25x4.5x2.3in 16x11.5x5.7cm
Electrical:	100 - 240V, 50-60Hz

CATALOG #	DESCRIPTION
E0203-120V	ENDURO™ 250V power supply 5 to 250VDC, 0.01 to 3A, 1 to 300W output, Timer 1 min - 99 hr 59 min or continuous, 10 steps/program, 10 program memory
E0203-230V	ENDURO™ 300V power supply 2 to 300VDC, 4 to 500mA output, 90W max/na, Timer: 1 min-99 hr 59 min or continuous, 120V
E0303	ENDURO™ Mini 300V 10 to 300VDC, 10 - 400mA, 60W, 100-240V, Timer 1-999 minutes with alarm, continuous
E0304	ENDURO™ PowerStack







**Accuris™ UV Transilluminators** feature space-saving designs, to fit perfectly in any busy laboratory. Two models are available, our standard E3000 and new E3100 myView compact model. Choose your model depending on your application and the size or number of gels to analyze.

- **302nm midrange UV wavelength**
- **Optimal for EtBr, SmartGlow, or SYBR stained nucleic acids**
- **E3000 models offers dual intensity settings (50% or 100%)**
- **Hinged UV safety cover**
- **Use with SmartDoc™ enclosure for gel imaging with a smart phone**

#### Compatible DNA Stains

- Ethidium Bromide
- SmartGlow LD and PS
- Gel Red
- Gel Green
- SYBR Green
- SYBR Safe
- Diamond Nucleic Acid Dye

### E3100 myView Compact UV Transilluminator

The myView's four 6W bulbs coupled with a reflector system and special diffusing filter glass provide exceptional uniformity across the viewing surface. This allows for quantification of DNA and also higher quality imaging when using a camera system.

Users are protected by harmful effects of UV radiation by the hinged, UV blocking safety cover. Two friction hinges on the front edge of the cover allow for easy adjustment of the cover angle. Position the cover horizontally for general viewing, tilt it at an angle for gel access and band cutting, or fully open to use the SmartDoc™ Imaging Enclosure and filters (sold separately) for gel imaging with a smartphone. Use filter E5001-UVBLOCK for best results when imaging SmartGlow, SYBR or ETBR stained gels.

The myView™ Transilluminator has a surprisingly small footprint (smaller than a standard piece of paper). However, the viewing surface is large enough to accommodate a mid-sized gel or multiple smaller gels. The 16.5 x 13.5 cm filter glass is scratch resistant to allow band excision with a metal blade.

### E3000 UV Transilluminator

The E3000 features a space-saving design, with a width of only 10.5 inches, to fit perfectly in any busy laboratory. However, the 16 x 19 cm UV viewing surface is sized to accommodate large gels or multiple smaller gels. The illuminated surface is comprised of a special black glass which is easy to clean, durable and scratch resistant.

An array of 4 high intensity UV bulbs coupled with an optimized filter provides even illumination across the viewing surface and allows detection of small sample quantities. The dual intensity switch can be used to lower the UV intensity to 50% to reduce DNA damage during long exposure times, or switch to high intensity (100%) for viewing weak fluorescent signals or for photo documentation.

The acrylic UV blocking cover allows safe viewing of samples and has two friction hinges on the front edge to allow angling of the cover for gel access. The cover can be positioned to 90° (straight up) to fit a gel imaging hood, such as the Accuris SmartDoc™ imaging enclosure.

## Ordering Information

### E3100 myView Specifications

Light Source	4 x 6 Watt UV bulbs
Wavelength	302nm
Viewing Surface	16.5 x 13.5 cm
Ext. Dimensions	10 x 8 x 2.75 in / 25 x 20 x 7 cm
Electrical	120V or 230V, 50/60Hz

### E3000 Specifications

Light Source	4 x 8 Watt UV bulbs
Wavelength	302nm
Intensity Control	Low (50%) or High (100%)
Viewing Surface	16x19cm
Ext. Dimensions	10.5 x 13 x 5.5 in / 26.5 x 32.5 x 14 cm
Electrical	120 or 230V, 50-60Hz



### UVP Crosslinker CL-3000

#### General Applications

- UV induced mutations
- Membrane crosslinking
- Biomolecular crosslinking
- UV dose calibrated to a NIST traceable standard

#### Product Details

- Built-in radiometer calibrated to a NIST traceable standard enables precise and accurate dosing to obviate end-user calibration
- Safety interlocks to prevent users from accidental UV exposure
- Capable of delivering up to 10 J/cm<sup>2</sup> of UVA, UVB, or UVC
- Extensive publication record using UVP Crosslinkers
- Highly-uniform surface illumination
- Compact-size to accommodate limited lab space

#### Immobilization of Nucleic Acids to Membranes

The UVP Crosslinker is a microprocessor controlled UV irradiation system dedicated to nucleic acid linking to membranes for Southern, Northern, Dot and Slot Blot applications.

#### Microprocessor Controlled Reproducibility

The programmable microprocessor constantly monitors the UV light emission. Irradiation stops exactly when the programmed energy is achieved. Thus, the effect of decreasing UV intensity due to bulb aging is compensated for.

#### Durability

The UVP Crosslinker combines the latest UV technology with high quality manufacturing: aluminum UV exposure chamber, protective quartz disk on the UV sensor cell, and a highly resistant and easy-to-clean keypad and housing.

#### Ease of use

The large display provides a series of predefined methods, making the UVP Crosslinker an easy to use yet powerful instrument for immobilization of nucleic acids to membranes. The programmed data are shown on the LED display.

Technical Specifications	CL-3000	CL-3000M	CL-3000L
Wavelengths	254 nm	302 nm	365 nm
Bulbs	6 x 8 Watt		
Energy	0000.1 - 9999.9 mJ/cm <sup>2</sup> (0 - 10 J/cm <sup>2</sup> )		
Time	000:01 - 999:59 (>300 J/cm <sup>2</sup> )		
Temperature	15°C - 35°C		
Humidity	70% Non-Condensing		
Altitude	up to 3,000M (9,842 ft)		
Sound Level	≤ 50 dba		
Housing Surface Temp	≤ 30°C		
Startup Time	< 1 sec		
External Dim (L x W x H)	41 cm x 40 cm x 26.5 cm		
Internal Dim (L x W x H)	35 cm x 27 cm x 16 cm		
Weight	6.8 Kg: 15 lb		
Operating Power	100 - 115VAC & 230VAC 50/60Hz		
Certifications	CE, RoHS (CSA In Process)		

### Ordering Information

CATALOG #	Description	Wavelength
849-95-0615-01	UVP Crosslinker CL-3000	254 nm
849-95-0615-03	UVP Crosslinker CL-3000M	302 nm
849-95-0615-05	UVP Crosslinker CL-3000L	365 nm

### Accessories

CATALOG #	DESCRIPTION
34-0007-01	Replacement UV tube, 8 Watt, 254 nm
34-0042-01	Replacement UV tube, 8 Watt, 302 nm
34-0006-01	Replacement UV tube, 8 Watt, 365 nm



## Section 1

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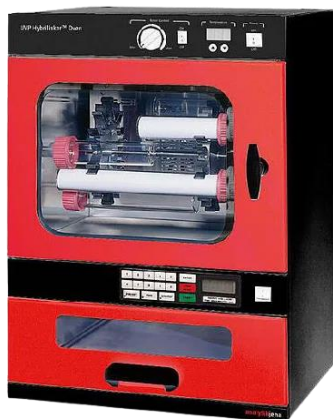
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### UVP Hybrilinker Oven

#### Unique combination of hybridization oven and UV crosslinker

- Carousel for multiple bottle sizes and off-set bottle positioning
- Variable rotor speed 10 - 15 rpm
- Microprocessor controlled incubation temperature



### UVP Multidizer Oven

#### Oven with two separate incubation chambers

- Microprocessor controlled incubation temperature
- Accurate temperature and rotation speed control
- Carousel for multiple bottle sizes and off-set bottle positioning



### UVP Hybridizer Oven

- Carousel for multiple bottle sizes and off-set bottle positioning
- Variable rotor speed 10 - 15 rpm
- Microprocessor controlled incubation temperature



### UVP Minidizer Oven

- Microprocessor controlled incubation temperature
- LCD display for easy operation
- Rotation speed set at 12 rpmTA



**Lab Ovens Comparison Chart** Choose the oven that complements your research goals



	UVP Hybridizer	UVP Hybrilinker	UVP Multidizer	
<b>Number of Hybridization Chambers</b>	1	1 Plus Crosslinker	2	
<b>Temperature</b>			Lower Chamber	Upper Chamber
Min. Temperature	10°C over RT	10°C over RT	10°C over RT	10°C over RT
Max. Temperature	99.9°C	99.9°C	99.9°C	80°C
Temperature Accuracy	+/- 0.3° to 68°C	+/- 0.3° to 68°C	+/- 0.3° to 68°C	+/- 0.3° to 68°C
Temperature Uniformity	+/- 0.1° to 68°C	+/- 0.1° to 68°C	+/- 0.1° to 68°C	+/- 0.1° to 68°C
Display	LED	LED	LED	LED
<b>Rotation Speed</b>	10 – 15 upm	10 – 15 upm	10 – 15 upm	12 – 20 upm
<b>Sample Capacity</b>				
Bottles (30 cm)	10	10	10	4
Bottles (15 cm)	20	20	20	8
<b>Reciprocating Shaker</b>				
Shaker tray	-----	-----	-----	Yes
Shaking speed	-----	-----	-----	54 - 106 upm
<b>Crosslinker</b>				
UV – Crosslinker	-----	YES, 5 x 8 W 254 nm bulbs	-----	-----
Max. UV energy setting	-----	999,900 microjoules per cm2	-----	-----
Preset or user-selected UV time exposure settings	-----	Internal interlocking safety system	-----	-----
Display	-----	Tactile membrane keypad	-----	-----
<b>Dimensions</b>				
Footprint (W x D)	40 x 38 cm	40 x 38 cm	45x38 cm	45 x 38 cm
Height	45 cm	61 cm	72 cm	72 cm
Wright	19.5 kg	27.2 kg	34 kg	34 kg
Interior hybridization chamber	35.6 x 27.3 x 27.3 cm	35.6 x 27.3 x 27.3 cm	35.6 x 27.3 x 27.3 cm	35.6 x 27.3 x 27.3 cm
Interior Crosslinker	-----	28.8 x 9.5 x 29.2 cm	-----	-----
<b>Electrical</b>	115 V, 60 Hz	115 V, 60 Hz	115 V, 60 Hz	115 V, 60 Hz
<b>Heating element</b>	1250 W	1250 W	1250 W	500 W
<b>Additional Specifications</b>				
Working conditions	5 to 40°C, max. 2,000 m	5 to 40°C, max. 2,000 m	5 to 40°C, max. 2,000 m	5 to 40°C, max. 2,000 m
Usage	The oven is designed for operation inside a building only			
Main supply	Not to exceed 10% of the nominal supply voltage			
Maximum Power consumption	1,210 W	1,150 W	950 W	950 W
<b>Orbital motion tray</b>				
Rotation speed	30 upm @ 2° corner	30 upm @ 2° corner	30 upm @ 2° corner	30 upm @ 2° corner
Maxium load	1.36 kg	1.36 kg	1.36 kg	1.36 kg
<b>Rocker tray</b>				
Shaking speed	7 – 14 upm	7 – 124 upm	7 – 14 upm	7 – 14 upm
Shaking angle	12°	12°	12°	12°
<b>Second Rotisserie</b>	-----	-----	Yes	Yes

**UVP Hybridizer Oven**

Carousel for multiple bottle sizes and  
off-set bottle positioning

- Variable rotor speed 10 - 15 rpm
- Microprocessor controlled incubation temperature

**Product Details**

- LED display for easy operation
- Easy to clean interior made of stainless steel
- Removable protective tray to allow easy cleanup of spilled media
- Glass door for easy viewing of samples and blocking of  $\beta$ -emission from the hybridization chamber
- Maximum power consumption: 1,210 Watt

The UVP Hybridizer Oven provides uniform temperature and rotation controls for thorough mixing of materials. The unit is ideal for Southern, Northern, and Western blots; in situ hybridization; and binding nucleic acids to nitrocellulose or nylon-reinforced transfer membranes or other media. Precise microprocessor rotation speed and variable speed control settings enable consistent sample saturation. A touch-sensitive key pad allows for precise temperature control, and an internal circulating fan maintains temperature uniformity. A large LED display shows the current chamber temperature. Internal stainless steel construction enables the environment to be kept clean. The UVP Hybridizer Oven accommodates multiple bottle sizes, arrangements, and positions to meet a variety of mixing requirements. The rotary wheel holds twenty 35x150 mm bottles or 35x100 mm bottles, ten 35 x 300 mm bottles, or a combination of the various sizes. The rotary wheel can be removed and replaced with a rocker tray or rocker plate to create a rocking motion and to accommodate various types of flasks. The removable protective trays allow for easy cleanup of spilled media.

\*Product performance and effectiveness will depends on the user.\*

**Technical Specifications****Ordering Information**

Technical Data	
Number of Hybridization chambers	1
Min. Temperature	10 °C above RT
Max. Temperature	99.9 °C
Temperature Accuracy	± 0.3° C to 68° C
Temperature Uniformity	± 0.1° C to 68° C
Rotor Speed	10 - 15 rpm
Bottles (30 cm)	10
Bottles (15 cm)	20
Footprint (W x D)	40 cm x 38 cm
Height / Weight	45 cm / 19.5 kg

Catalog #	Description
<b>95-0030-01</b>	UVP Hybridizer Oven (115 V, US plug) * Hybridization bottles sold separately.
07-0194-01	Hybridization bottle small, 10 x 3.5 cm incl. cap, O-ring and PTFE seal
07-0194-02	Hybridization bottle large, 30 x 3.5 cm incl. cap, O-ring and PTFE seal
98-0067-03	Rocker Tray (for UVP Hybridizer Oven, UVP Hybrilinker Oven and UVP Multidizer Oven)
98-0067-04	Orbital Tray (for UVP Hybridizer Oven, UVP Hybrilinker Oven and UVP Multidizer Oven)

## UVP Hybrilinker Oven Unique combination of hybridization oven and UV crosslinker

- Carousel for multiple bottle sizes and off-set bottle positioning
- Variable rotor speed 10 - 15 rpm
- Microprocessor controlled incubation temperature

### Product Details

- LED display for easy operation
- Easy to clean interior made of stainless steel
- Removable protective tray to allow easy cleanup of spilled media
- Glass door for easy viewing of samples and blocking of  $\beta$ -emission from the hybridization chamber
- Orbital motion tray or rocker tray available as optional accessories
- Maximum power consumption: 1,150 Watt

The UVP Hybrilinker Oven is a self-contained unit which provides the unique combination of a hybridization oven and a 254 nm ultraviolet crosslinker. The hybridization oven portion of the UVP Hybrilinker Oven is ideal for Southern, Northern, and Western blots; in situ hybridization; and binding nucleic acids to nitrocellulose or nylon-reinforced transfer membranes or other media. The unit features a precise microprocessor for control of rotation speeds and temperature control. An internal circulating fan maintains temperature uniformity, and a large LED display shows the current chamber temperature. Internal stainless steel construction enables the environment to be easily kept clean. The oven accommodates multiple bottle sizes, arrangements, and offset positions to meet a variety of mixing requirements. The rotary wheel holds twenty 35x150 mm bottles or 35x100 mm bottles, ten 35x300 mm bottles, or a combination of the various sizes. The rotary wheel can be removed and replaced with a rocker tray or rocker plate to create a rocking motion and to accommodate various types of flasks. The removable protective trays allow for easy cleanup of spilled media.

The ultraviolet crosslinker portion of the UVP Hybrilinker Oven provides uniform shortwave (254 nm) ultraviolet radiation exposure. Five 254 nm UV tubes are used to maintain uniform UV exposure. UV output is measured by an internal sensor and is controlled by an on-board microprocessor. The crosslinker features an internal interlocking system for added safety. The hybridization oven and crosslinker components have separate power supplies and may operate independently.

### Technical Data

Number of Hybridization chambers	1 plus crosslinker
Min. Temperature	10 °C above RT
Max. Temperature	99.9 °C
Temperature Accuracy	$\pm 0.3^\circ \text{C}$ to $68^\circ \text{C}$
Temperature Uniformity	$\pm 0.1^\circ \text{C}$ to $68^\circ \text{C}$
Rotor Speed	10-15 upm
Bottles (30 cm)	10
Bottles (15 cm)	20
Crosslinker	Yes 5 x 8W 254nm bulbs
Footprint (W x D)	45 cm x 38 cm
Height / Weight	61 cm / 27.2 kg



### Optional Accessories

#### Orbital tray

Rotation speed	30 rpm @ $2^\circ$ angle
Maxium load	1.36 kg

#### Rocker tray

Shaking speed	7-14 rpm
Shaking angle	$12^\circ$

### Ordering Information

Catalog #	Description
95-0031-01	UVP Hybrilinker Oven, 115 V, US
07-0194-01	Hybridization bottle small, 10 x 3.5 cm incl. cap, O-ring and PTFE seal
07-0194-02	Hybridization bottle large, 30 x 3.5 cm incl. cap, O-ring and PTFE seal
849-30083-0	Bottle cap incl. O-ring and PTFE seal
98-0067-03	Rocker Tray (for UVP Hybridizer Oven, UVP Hybrilinker Oven and UVP Multidizer Oven)
98-0067-04	Orbital Tray (for UVP Hybridizer Oven, UVP Hybrilinker Oven and UVP Multidizer Oven)
849-30051-0	Orbital Tray (for UVP Hybridizer Oven, UVP Hybrilink Oven and UVP Multidizer Oven)
849-30220-0	UV tube 365 nm Longwave
849-30221-0	UV tube 302 nm Midrange
849-30222-0	UV tube 254 nm Shortwave
849-00014-0	Sensor UVX-36 Longwave
849-00013-0	Sensor UVX-31 Midrange
849-00012-0	Sensor UVX-25 Shortwave

**UVP Hybridizer Oven**

- Carousel for multiple bottle sizes and off-set bottle positioning
- Variable rotor speed 10 - 15 rpm
- Microprocessor controlled incubation temperature

**Product Details**

- LED display for easy operation
- Easy to clean interior made of stainless steel
- Removable protective tray to allow easy cleanup of spilled media
- Glass door for easy viewing of samples and blocking of  $\beta$ -emission from the hybridization chamber
- Maximum power consumption: 1,210 Watt

Optional Accessories	
Orbital tray	
Rotation speed	30 rpm @ 2° angle
Maximum load	1.36 kg
Rocker tray	
Shaking speed	7-14 rpm
Shaking angle	12°



The UVP Hybridizer Oven provides uniform temperature and rotation controls for thorough mixing of materials. The unit is ideal for Southern, Northern, and Western blots; in situ hybridization; and binding nucleic acids to nitrocellulose or nylon-reinforced transfer membranes or other media. Precise microprocessor rotation speed and variable speed control settings enable consistent sample saturation. A touch-sensitive key pad allows for precise temperature control, and an internal circulating fan maintains temperature uniformity. A large LED display shows the current chamber temperature. Internal stainless steel construction enables the environment to be kept clean. The UVP Hybridizer Oven accommodates multiple bottle sizes, arrangements, and positions to meet a variety of mixing requirements. The rotary wheel holds twenty 35x150 mm bottles or 35x100 mm bottles, ten 35 x 300 mm bottles, or a combination of the various sizes. The rotary wheel can be removed and replaced with a rocker tray or rocker plate to create a rocking motion and to accommodate various types of flasks. The removable protective trays allow for easy cleanup of spilled media.

\*Product performance and effectiveness will depend on the user.\*

**Technical Specifications**

Number of Hybridization chambers	1
Min. Temperature	10 °C above RT
Max. Temperature	99.9 °C
Temperature Accuracy	± 0.3° C to 68° C
Temperature Uniformity	± 0.1° C to 68° C
Rotor Speed	10 - 15 rpm
Bottles (30 cm)	10
Bottles (15 cm)	20
Footprint (W x D)	40 cm x 38 cm
Height / Weight	45 cm / 19.5 kg

**Ordering Information**

Catalog #	Description
<b>95-0030-01</b>	UVP Hybridizer Oven (115 V, US plug)
<b>07-0194-01</b>	Hybridization bottle small, 10 x 3.5 cm incl. cap, O-ring and PTFE seal
<b>07-0194-02</b>	Hybridization bottle large, 30 x 3.5 cm incl. cap, O-ring and PTFE seal
<b>849-30083-0</b>	Bottle cap incl. O-ring and PTFE seal
<b>98-0067-03</b>	Rocker Tray (for UVP Hybridizer Oven, UVP Hybrilinker Oven and UVP Multidizer Oven)
<b>98-0067-04</b>	Orbital Tray (for UVP Hybridizer Oven, UVP Hybrilinker Oven and UVP Multidizer Oven)



## UVP Minidizer Hybridization Oven

The UVP Minidizer Hybridization Oven is a cost-effective device with low space requirements for temperature incubation of membranes during blotting procedures.

The UVP Minidizer operates with a state-of-the-art microprocessor as well as temperature and variable speed controls. The instrument enables consistent saturation of samples, whether it is used for washing or hybridizing.

- Microprocessor controlled incubation temperature
- LCD display for easy operation
- Rotation speed set at 12 rpm
- Temperature range: Ambient +10 °C to 80 °C max.
- 3/8" thick acrylic door for easy viewing of samples and blocking of β-emission



- Easy to clean interior made of stainless steel
- Cover swings open for easy access to the bottle carousel; the carousel pops out of chamber for easy insertion of bottles
- Carousel capacity: 4 × 35 mm × 150 mm bottles, 8 × 50 ml tubes or 8 × 15 ml tubes

## Ordering Information

Order number	Description
95-0330-01	UVP Minidizer Oven, 115 V, US * Hybridization bottles sold separately.
07-0174-01	Hybridization bottle small, 10 x 3.5 cm incl. cap, O-ring and PFTE seal
849-30083-0	Bottle cap incl. O-ring and PFTE seal

## Technical Specifications

### TEMPERATURE

Min. Temperature 10 °C over RT  
 Max. Temperature 80 °C  
 Temperature Accuracy ± 0.5 °C to 68 °C  
 Temperature Uniformity ± 0.1 °C to 68 °C  
 Display LCD

**Sample Capacity** Bottles (15 cm) 4 | 50 ml tubes 8 | 15 ml tubes 8

**Dimensions** Footprint (W × D) 33 × 20 cm | Height 23 cm | Weight 5.1 kg

**Rotation Speed** Carousel 12 upm

**Electrical** 115 V 60 Hz 230 V 50 Hz 100 V 50 Hz

### ADDITIONAL SPECIFICATIONS:

Working conditions 5 °C to 40 °C, max. 2,000 m  
 Indoor Use The oven is designed for operation inside a building only  
 Main supply Not to exceed 10% of the nominal supply voltage  
 Maximum power consumption 500 Watts

Accessories for Ovens

Order number	Accessories
849-30080-0	Large hybridization bottle, 30 × 3.5 cm incl. lid, O-ring and PTFE seal
849-30081-0	Medium hybridization bottle, 15 × 3.5 cm incl. lid, O-ring and PTFE seal
849-30082-0	Small hybridization bottle, 10 × 3.5 cm incl. lid, O-ring and PTFE seal
849-30083-0	Lid for hybridization bottles incl. O-ring and PTFE seal
849-30084-0	Nylon nets 15 × 10 cm
849-30085-0	Nylon nets 23 × 23 cm
849-30058-0	Carousel for four oversized bottles (for Hybridizer, Hybrilinker, and Multidizer Ovens)
849-30059-0	Carousel, Metal for 10 × 50 ml conical vessels (for Hybridizer, Hybrilinker, and Multidizer Ovens)
849-30057-0	Carousel, Acrylic (for Multidizer Oven)
849-30050-0	Rocker tray (for Hybridizer, Hybrilinker & Multidizer)
849-30051-0	Orbital shaker (for Hybridizer, Hybrilinker & Multidizer)

Ordering Information

Description





# Benchmark Scientific & Labnet™ brands Benchtop Equipment



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Centrifuges



Vortex Mixer



Digital Dry Heaters



Digital Heating & Chilling Plates



Hotplates & Stirrers



Benchtop Shakers

CLP offers a variety of standard benchtop equipment servicing the fundamental needs of your laboratory. We offer an expansive repertoire of high quality benchtop equipment for various applications. Whether you are storing restriction enzymes in a Digital Heating and Chilling Device or preparing buffer using a Hotplate Stirrer, using an Apollo™ brand benchtop equipment ensures that all fundamental laboratory procedures are performed with a high quality instrument.

For example, a quick spin on CLP's personal minicentrifuges can salvage valuable assay reagents that may otherwise be retained and unused on the

sides of a tube. Use an Apollo™ brand microcentrifuge to quickly and silently pellet biological samples for washing in between probing or specific labeling. Subsequently, a CLP vortex mixer can be used to suspend samples.

CLP now offers orbital shakers that can be used in a 37°C controlled environment ideal for bacterial culture scale-up and a digital dry heater ideal for denaturing proteins prior to gel electrophoresis using a CLP gel device.

### Mini Centrifuge

The Mini centrifuge is a personal centrifuge that virtually fits in the palm of your hand. Ideal for quick spin downs of microtubes and PCR tubes, is extremely easy to use. Simply close the lid and the rotor instantly reaches 6,000 rpm. Open the lid, and the rotor quickly decelerates to a stop for removing samples.

An increased capacity, eight-position microtube rotor is included and comes installed. Also included is a second rotor for 0.2ml PCR tubes and strips which is stored (together with the rotor removal key) in a convenient compartment on the bottom of the centrifuge. When the rotor is not in use, storage in this compartment prevents loss or misplacement of the rotor.

### Features:

- Eight position microtube rotor
- Storage compartment for PCR rotor
- Near silent operation
- Starts and stops in seconds
- Conserves valuable bench space



### Ordering Information

Catalog #	Before	Description:
3400.C	3400	Mini Centrifuge, clear lid
3400.B	-----	Mini Centrifuge, blue lid
3400.G	-----	Mini Centrifuge, green lid
3400.P	-----	Mini Centrifuge, purple lid
3400.R	-----	Mini Centrifuge, red lid
3402.05	3402	Replacement adapter pack, 0.5ml 8/pk.
3403.02	3403	Replacement adapter pack, 0.2ml 8/pk.

### Technical Specifications

<b>RCF/Max Speed</b>	2000 x g @ 6,000 rpm 1177 x g (With 0.2ml strip tube rotor)
<b>Standard rotor</b>	8 x 1.6/2ml microcentrifuge tube
<b>Strip tube rotor</b>	2 x 0.2ml strip tubes
<b>Dimensions</b>	4.5 x 5.9 x 4.5" (11.4 x 15 x 11.4cm)
<b>Weight</b>	2.2 lb / 1 kg
<b>Electrical</b>	Universal Voltage 100-240V, 50-60 Hz, 250 W



Microcentrifuges

The Spectrafuge™ 16M is the perfect, high speed, compact microcentrifuge. A brushless, maintenance free motor provides extremely fast acceleration and deceleration of the 18 place rotor and makes the Spectrafuge™ 16M the quietest microcentrifuge in its class.

- Brushless, maintenance-free motor
- Exceptionally quiet and cool operation
- High maximum speed/g-force
- Extremely small footprint

Speed and time are set with the control knobs on the front panel of the Spectrafuge™ unit. A quick button allows for momentary runs. A continuous flow of ambient air through the rotor chamber keeps the rotor and samples cool. For applications requiring sub-ambient temperatures, the can be operated in a cold room. Is supplied complete with an 18 place rotor for 1.5/2.0 ml tubes. Smaller tubes are accommodated by adapters (sold separately). The optional StripSpin™ rotor adapter holds two 8 x 0.2 ml strips, typically used for thermal cycling.



Ordering Info:	
CATALOG #	Description:
3410	Spectrafuge™ 16M complete with 18 x 1.5ml rotor, 120V, Standard Gray
3410-8ADP	StripSpin™ adapter for two 8 x 0.2 ml tubes strips
3402	0.5/0.6 ml tube Adapters, Pack of 6
3403	0.4/0.25 ml Adapters, Pack of 6
3404	0.2 ml Thermal Cycling Tube Adapters, Pack of 6

Technical Specifications:	
Speed range	1,000 rpm to 14,000 rpm
Maximum RCF	16,000 x g
Maximum capacity	18 x 1.5/2.0 mL
Acceleration to max. Speed	10 seconds
Deceleration from max. speed	9 seconds
Timer	1 - 30 min or continuous, “Quick” button for momentary operation
Ambient operating range	4° to 35°C
Dimensions (W x D x H)	8.25 x 8.9 x 7.6 in/21 x 23 x 19.3 cm
Weight	10 lb/4.5 kg
Electrical	230V~ or 120V~, 50/60 Hz



## Microcentrifuges

The newest member of the Spectrafuge microcentrifuge family, the 24D, features precise digital microprocessor control. This microcentrifuge is loaded with features, yet has a list price low enough to make it the most economical high performance microcentrifuge on the market.

- Complete with easy access, 24 x 1.5/2.0 ml rotor
- Set and view speed in rpm or g-force
- Digital set and display of parameters
- Quiet and cool running

A newly designed, easy-access 24 x 1.5 ml rotor is supplied. This innovative rotor places the tubes on a plateau, where the user can easily grip their tops. The powerful brushless motor quickly accelerates the rotor to a maximum speed of 13,300rpm/16,000 x g. The controls are simple, consisting of only two knobs. The speed knob is used to set the speed in either rpm or g-force. Pressing the knob toggles the display between rpm and rcf. Turning the timer knob sets the time parameter, while pushing it starts and stops operation of the unit. The last run settings remain in memory allowing for repetitive centrifuging without resetting of parameters. Extremely quiet and cool running, this unit maintains a small footprint. Is available in five accent colors.



### Ordering Information

Catalog #	Description:
<b>3420</b>	Spectrafuge™ 24D digital microcentrifuge, with 18 x 1.5ml rotor, 120V, Standard Gray
<b>3410-8ADP</b>	StripSpin™ adapter for two 8 x 0.2 ml tubes strips
<b>3402</b>	0.5/0.6 ml tube Adapters, Pack of 6
<b>3403</b>	0.4/0.25 ml Adapters, Pack of 6
<b>3404</b>	0.2 ml Thermal Cycling Tube Adapters, Pack of 6

### Technical Specifications

Technical Specifications:	
<b>Speed range</b>	500 rpm to 13,300 rpm
<b>Maximum RCF</b>	16,300 x g
<b>Maximum capacity</b>	24 x 1.5/2.0 mL
<b>Timer</b>	1 to 30 minutes or continuous, "Quick" button for momentary operation
<b>Ambient operating range</b>	4° to 35°C
<b>Dimensions (W x D x H)</b>	9.25 x 11.5 x 8.5 in/ 23.5 x 29.3 x 21.6 cm
<b>Weight</b>	18 lb/8.1 kg
<b>Electrical</b>	230V~ or 120V~, 50/60 Hz

### Related Products:

For premium quality microcentrifuge tubes, see our Neptune™ brand tubes section, pages



cat # 3745.X  
(page 190 )



cat # 3735.X  
(page 189)



VORTEX MIXER

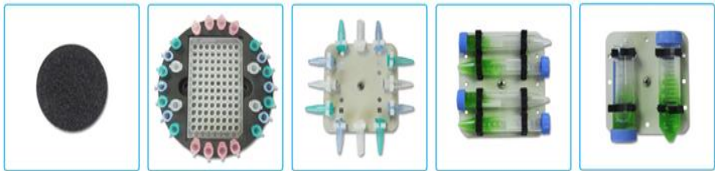
Features:

- Powerful motor for *INSTANT* vortexing
- Continuous or "touch" operation
- Q-Drive™ dynamic balancing system
- Variable speed from 200 to 3200 rpm
- Wide variety of accessories

Description:

The BenchMixer™ sets the new standard in vortex mixing. With advanced Q-Drive™ technology, the BenchMixer provides smooth instant vortexing of even the largest sample sizes, including full 50ml tubes. The unique counter-balance system creates maximum vortexing action, while minimizing noise and excessive vibration. This results in quieter, more efficient and longer lasting operation. Other features include: "no-walk" suction feet, cold room/incubator compatibility and spill-proof electronic controls.

Attachment Options:



Technical Specifications

Speed:	200 to 3200 rpm
Operating modes:	Touch or continuous
Orbit:	3mm
Operating Temp. Range:	+4 to +65°C
Dimensions: (w x d x h)	5 x 6.3 x 6.7 in. 13 x 16 x 17 cm
Weight:	8.4 lbs (3.8 kg)
Electrical:	115V, 60Hz or 230V, 50Hz, 180W

Ordering Information

Before	Catalog #	Description:
3412	BV1000	BenchMixer Vortex Mixer
3412.1	BV1000-FLAT	Optional 3 in. flat head attachment
3412.2	BV1000-COMBO	Optional combination head for one microplate & microtubes (38x1.5 & 28x0.5)
3412.3	BV1000-H15	Optional attachment, 12 x 1.5ml, horizontal
3412.4	BV1000-H150	Optional attachment for 4 x 15ml, horizontal
3412.5	BV1000-H500	Optional attachment for 2 x 50ml, horizontal





BENCHMARK TRADITIONAL DRY BATHS

- Digital accuracy and convenience
- Single, double and four block capacity
- Assorted blocks for a wide variety of tube sizes
- Custom blocks available upon request
- Blocks sold separately

Benchmark Digital Dry Baths provide accurate “set and walk away” digital temperature selection, eliminating the need for external thermometers and repetitive “fine tuning” of a temperature control knob. Simply enter the desired temperature on the digital touchpad and the Benchmark Dry Bath provides accurate temperature with real time monitoring that continuously maintains the selected temperature within  $\pm 0.2^{\circ}\text{C}$ . In addition, a digital timer is built into the touchpad display. Although it is not designed to shut off the heater, it can be used to alert the user that a chosen time interval has timed out.

The cavities of the high grade aluminum blocks are precision machined to match the conical size and shape of 0.5, 1.5, 2.0, 15 and 50ml tube sizes, providing unsurpassed temperature transfer. Assorted blocks are available for compatibility with nearly all common laboratory tubes and plates. Custom blocks are also available upon request.

All Benchmark dry baths offer a built-in user recalibration function, to guarantee long term temperature accuracy. Each dry bath includes an easy to use block lifter, with a temperature insulated handle for quick, convenient exchange of blocks, even while they’re still hot.

Ordering Information

Catalog	Description
BSH1001	Digital Dry Bath, Single Position
BSH1002	Digital Dry Bath, Double Position
BSH1004	Digital Dry Bath, Four Position
BSW1500	Block 24 x 1.5 ml
BSW1520	Block 24 x 1.5 / 2.0 ml
BSW05	Block 24 x 0.5 ml
BSW15	Block 12 x 15 mk (block height is 3.25")
BSW50	Block 5 x 50 ml (block height is 3.25")
BSW10	Block 20 x 10 mm (or 20 x 2.0 ml)
BSW13	Block 20 x 13 mm (or 20 x 5/7 ml)
BSW1516	Block 12 x 15-16 mm (or 12 x 10 ml)
BSW1232	Block 20 x HPLC / Cryovial
BSW02	Block 48 x 0.2 ml tubes or 6 PCR tube strips
BSWPCR2	Block 1 x 96 well PCR Plate (for 2 & 4 block models)
BSWPCR1	Block 1 x 96 well PCR Plate (for 1 block models)
BSWMT	Block 1 x Micro Titer Plate (for 2 and 4 block models)
BSW01	Block solid for slides or custom machining

Technical Specifications

Temperature Range:	Ambient +5 to 150°C (Max. Temp of BSH1004 is 130°C)
Temperature Accuracy:	+0.2°C
Temperature Uniformity:	$\pm 0.2^{\circ}\text{C}$
Temperature Increments:	0.1°C
Timer:	1 to 999 minutes
Dimensions (Single):	7.8 x 9 x 3.2 in./ 20 x 23 x 8 cm
Dimensions (Dual):	8.7 x 10.3 x 3.2 in. / 22 x 26 x 8 cm
Dimensions (Four):	8.7 x 14 x 3.2 in. / 22 x 35.5 x 8 cm
Electrical:	120V or 230V 50-60Hz



Analog Hotplates & Stirrers

Features:

- Ceramic work surface, 7.5 x 7.5 in.
- Stir speed from 60 to 1500 rpm
- Temperature control up to 380°C
- Three models: heat-stir, heat only or stir only

Hotplates, stirrers and hotplate-stirrers feature an exceptionally durable, chemical resistant white ceramic work surface. Their space-efficient design (8 X 9 in. footprint), makes them ideal for use on crowded benchtops and inside of bio-hoods.

Advanced microprocessor controls with convenient turn knobs allow quick, precise adjustment and maintenance of speed and temperature. Safety indicator LED's on the front panel indicate when the heating and/or stirring functions have been activated. With a square 7.5 in work surface, all three models are compatible with a wide variety of popular sizes of borosilicate glass beakers, flasks, bottles and other vessels. The hotplate/magnetic stirrer model (H4000-HS) comes complete with a support rod for mounting thermometers and temperature probes.

Technical Specifications

Top Plate	White Ceramic
Top Plate Size	7.5 x 7.5" (19 x 19 cm)
Temp Max	480 a 380°C (9046 & 9047)
Stirrer Speed Range	60 - 1500 rpm (9046 & 9046)
Heating Power	500 watts
Dimensions	8 x 9 x 4.5" (20 x 23 x1.5cm)
Weight	9 lbs (4 kg)
Electrical	120 V, 50-60 Hz

Ordering Information

Before	Catalog #	Description:
9045	H4000-HS	Hotplate & Stirrer
-----	H4000-S	Magnetic Stirrer
-----	H4000-H	Hotplate





## Digital Hotplates, Stirrers & Hotplate Stirrers, 115 V, 50-60 Hz, 500 W

Benchmark hot plates, stirrers and hotplate-stirrers feature an exceptionally durable, chemical resistant, White ceramic worksurface. The space-efficient design (7.5X11.5in. footprint) makes them ideal for use on crowded benchtops, biological safety cabinets and in bio-hoods. Advanced microprocessor controls allow quick, precise adjustment of speed and temperature. The display provides constant visualization of the speed and temperature while a safety LED indicates when the top plate is above 50°C. In addition, an optional probe is available for applications that require precise temperature control. When connected, the probe provides direct feed back to the microprocessor, which continuously adjusts and maintains the selected temperature in the sample with in +/- 1°C. With a square 7in. Work surface, all models are compatible with a wide variety of popular sizes of borosilicate glass beakers, flasks, bottles and other vessels. An optional support rod (H3770-ROD) is available for mounting thermometers, temperature probes, etc.

- Large, 7 x 7" white ceramic top plate
- Safety LED indicates hot surface
- 5L stir capacity
- Control actual temperature (with optional probe)

### Ordering Information

### Technical Specifications

<b>H3770-H</b>	Benchmark Digital Hot Plate, 115 V
<b>H3770-S</b>	Benchmark Digital Magnetic Stirrer, 115 V
<b>H3770-HS</b>	Benchmark Digital Hotplate Magnetic Stirrer, 115 V
<b>H3770-ROD</b>	Optional support rod
<b>H3770-TP</b>	Optional temperature probe
<b>H3770-CS</b>	Clamp assembly with support rod and clamps for securing thermometers/probes
<b>H3770-CSTF</b>	Clamp Set, chemically resistant/inert teflon, includes rod and clamp

Hotplate Digital H3770-H	
Temperature Range:	35 to 400°C
Platform	17.8x17.8 cm (7"x7")
Dimensions	18 W x 27.9 D x 10.1 H cm (7.5"x11.5"x4")
Magnetic Stirrer Digital H3770-S	
Speed Range	150 to 1,500 rpm
Platform	17.8x17.8 cm (7"x7")
Dimensions	18 W x 27.9 D x 10.1 H cm (7.5"x11.5"x4")
Hotplate Stirrer Digital H3770-HS	
Temperature Range	35 to 400°C
Speed Range	150 to 1,500 rpm
Platform	17.8x17.8 cm (7"x7")
Dimensions	18 W x 27.9 D x 10.1 H cm (7.5"x11.5"x4")



MAGIC CLAMP™

Four versatile models covering a full range of applications

- Powerful, brushless motor drive systems
- Attach flask clamps in one second with unique MAGIC Clamp platform



Selection Guide



Model:	Orbi-Shaker JR	Orbi-Shaker	Orbi-Shaker MP	Orbi-Blotter
Max. Speed	300 rpm	300 rpm	1500 rpm	70 rpm
Min. Speed	50 rpm	30 rpm	200 rpm	3 rpm
Orbit Size	19mm	19 mm	3 mm	19 mm
Flask Capacity (125ml)	12	24	N/A	24*
Flask Capacity (250ml)	8	14	N/A	14*
Flask Capacity (500ml)	6	9	N/A	9*
Flask Capacity (1L)	4	5	N/A	5*
Flask Capacity (2L)	N/A	2	N/A	3*
Microplate Capacity	N/A	4	4	N/A
Control	Digital	Digital	Digital	Analog

\*For low speed applications (not requiring clamps) only.

# ORBI-SHAKER™ JR.



**9.5 x 8 in.**

- Perfectly circular 19 mm orbit for aeration and mixing
- Digital speed control up to 300 rpm
- Available with MAGIC Clamp Platform

## ORBI-SHAKER JR.

The Orbi-Shaker Jr. is a space-saving shaker, complete with a 9.5" x 8" non slip, rubber coated platform that is ideal for tissue culture flasks, Petri dishes and staining trays.

Additional platforms are also available for the Orbi-Shaker Jr. Including the convenient MAGIC Clamps platform (patent pending) for use with Erlenmeyer Flasks and test tube racks. The unique, magnetic attachment method is the easiest way to instantly change between flask clamps of different sizes

### Technical Specifications

Speed Range	50 to 300 rpm
Speed Increment	10 rpm
Orbit	19mm
Timer	1 min. to 99 hr or continuous
Platform Size	9.5 x 8 in. / 24 x 20 cm
Load Capacity	4 x 1L or 9 lbs (4kg)
Ambient Operating Temp	+4°C to +65°C
Dimensions (in)	13.1 x 11.7 x 4.7
Dimensions (cm)	33.3 x 29.8 x 12
Weight	12lbs (5.5kg)
Electrical	Universal Voltage: 100 to 240V 50-60Hz; 250W

### Ordering information

<b>BT302</b>	Orbi Shaker Jr with non slip, rubber mat platform 9.5 x 8 in
<b>H1000-MR</b>	MAGic Clamp universal platform (9.5"x11.5") for flasks & tube racks
<b>H1000-MR-50</b>	Clamp for Magic Clamps platform 50 ml. (max. 20)
<b>H1000-MR-125</b>	Clamp for Magic Clamps platform 125 ml. (max. 12)
<b>H1000-MR-250</b>	Clamp for Magic Clamps platform 250 ml. (max. 8)
<b>H1000-MR-500</b>	Clamp for Magic Clamps platform 500 ml. (max. 6)
<b>H1000-MR-1000</b>	Clamp for Magic Clamps platform 1000 ml. (max. 4)
<b>H1000-MR-2000</b>	MAGic Clamp magnetic clamp 2000 ml
<b>H1000-MR-1550</b>	Tube rack for Magic Clamp platform 12x50 and 21x15 ml conical tubes (max. 2)
<b>H1000-MR-CMB</b>	MAGic clamp magnetic clamp, one microplate (max. 4)
<b>H1000-MR-MP</b>	MAGic clamp magnetic clamp, one microplate
<b>H1000-MR-T15</b>	MAGic Clamp™ Tube Rack, 32x15ml, tubes (max. 8)
<b>H1000-MR-T150H</b>	MAGic Clamp™ Tube Rack, 4 x 15ml tubes, horizontal
<b>H1000-MR-T15H</b>	MAGic Clamp™ Tube Rack, 12 x 1.5/2.0ml tubes, horizontal
<b>H1000-MR-T50</b>	MAGic Clamp™ Tube Rack, 15 x 50ml
<b>H1000-MR-T500H</b>	MAGic Clamp™ Tube Rack, 2 x 50ml tubes, horizontal
<b>H1000-MR-T600</b>	MAGic Clamp™ Tube Rack, 4x500ml or 600ml conical bottles
<b>BT300-RP</b>	Rolling bar platform for uncommon vessels

ORBi-SHAKER™



ORBi-SHAKER™ WITH TOUCH SCREEN  
DISPLAY AND RUBBER MAT PLATFORM  
(13"X12")

- High capacity, up to 9 x 500ml, 5 x 1L or 2 x 2L
- Large platform up to 24x125 ml. 14x250 ml. 9x500 ml 5x 1 L or 2x2 L
- Horizontally circular 19mm orbit for aeration & mixing
- Digital speed control up to 300 rpm
- Instantly exchange flask clamps with **MAGic Clamp™ accessories (PATENTED)**

The powerful Orbi-Shaker is capable of mixing a 14 lb load capacity up to speeds as high as 300 rpm. The standard platform (included) features a non-slip, rubber coated Surface, ideal for tissue culture flasks, Petri dishes and staining trays.

The convenient MAGic Clamp platform (patent pending) is also available for use with Erlenmeyer Flasks and test tube racks. The unique, magnetic attachment method is the easiest way to instantly change between flask clamps of different sizes.

Technical  
Specifications

Speed Range	30 to 300 rpm
Speed Increment	1 rpm
Orbit	19mm
Timer	1 min. to 99 hr or continuous
Platform Size	13 x 12 in. / 33 x 30 cm
Load Capacity	5 x 1L or 14 lbs (6.4kg)
Operating Temp. Range	+4°C to +65°C
Dimensions	28 x 41 x 7.5 cm (22" x 16.2 x 3")
Weight	25lbs (11.5kg)
Electrical	115 or 230V 50-60Hz; 50W

Ordering Information

Catalog #	Description:
<b>BT3001</b>	Orbi-Shaker Orbital Shaker with non-slip rubber mat platform (13x12 in)
<b>BT3000-MR</b>	MAGic Clamp universal platform (14"x12") for flasks & tube racks
<b>H1000-MR-50</b>	Clamp for MAGic platform 50 ml. (max. 30)
<b>H1000-MR-125</b>	Clamp for MAGic platform 125 ml. (max. 24)
<b>H1000-MR-250</b>	Clamp for MAGic platform 250 ml. (max. 14)
<b>H1000-MR-500</b>	Clamp for MAGic platform 500 ml. (max. 9)
<b>H1000-MR-1000</b>	Clamp for MAGic platform 1000 ml. (max. 5)
<b>H1000-MR-2000</b>	Clamp for MAGic platform 2000 ml. (max. 2)
<b>H1000-MR-1550</b>	Tube rack for MAGic Clamp platform 12x50 and 21x15 ml conical tubex (max 2)
<b>H1000-MR-CMB</b>	MAGic clamp combo for 125, 250, 500 ml flasks (max. 4)

Catalog #	Description:
<b>H1000-MR-P</b>	MAGic clamp magnetic clamp, one microplate
<b>H1000-MR-T15</b>	MAGic Clamp Tube Rack 32x 15 ml tubes (max. 8)
<b>H1000-MR-T15H</b>	MAGic Clamp Tube Rack 12x 1.5/2.0 ml tubes, Horizontal
<b>H1000-MR-T50</b>	MAGic Clamp Tube Rack 15x50 ml
<b>H1000-MR-T150H</b>	MAGic Clamp Tube Rack 4 x 15 ml tubes, horizontal
<b>H1000-MR-T500H</b>	MAGic Clamp™ Tube Rack, 2 x 50ml tubes, horizontal
<b>H1000-MR-T600</b>	MAGic Clamp™ Tube Rack, 4x500ml or 600ml conical bottles
<b>H1000-MR-TSR</b>	MAGic Clamp™ tilted holder for 15mL and 50mL tube racks
<b>H1000-P-MP</b>	Dedicated platform 4 x microplates (standard or deepwell)
<b>H1000-P-SP</b>	Spring rack platform for uncommon vessels and containers



# ORBI-SHAKER™ MP



## ORBI-SHAKER MP

The Orbi-Shaker MP™ is designed with a 3mm mixing orbit, optimized for thorough mixing of microplates and/or PCR plates. Up to four plates (standard or deep well) can be placed on the included platform and are instantly secured without the use of springs, clamps or tools.

- 3 mm Orbit, optimized for thorough mixing in microplates
- Digital speed control up to 1500 rpm
- Holds up to four microplates

### Technical Specifications

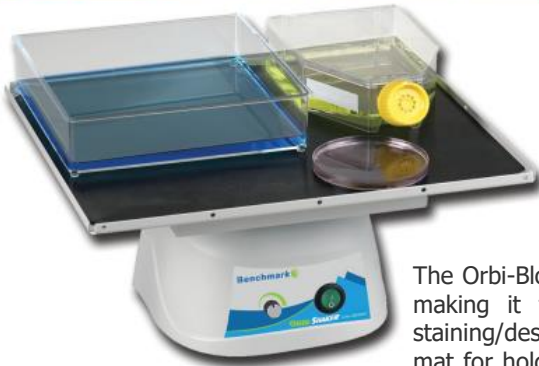
Speed Range	200 to 1500 rpm (max 1000 rpm with deep well plates)
Speed Increment	10 rpm
Orbit	3 mm
Timer	1 min. to 99 hr or continuous
Platform Size	9.5 x 8 in. / 24 x 20 cm
Load Capacity	Up to 4 microplates
Ambient Operating Temp	+4°C to +65°C
Dimensions (in)	13.1 x 11.7 x 4.7
Dimensions (cm)	33.3 x 29.8 x 12
Weight	12lbs (5.5kg)
Electrical	Universal Voltage: 100 to 240V 50-60Hz; 250W

### Ordering information

<b>BT1502</b>	Orbi Shaker MP with platform for 4 microplates
<b>BT1500-A1520</b>	Microtube Adapter For 1.5/2.0 ml microtubes
<b>BT1500-A05</b>	Microtube Adapter For 0.5 ml. microtubes



ORBi-BLOTTER™



ORBi-BLOTTER™ WITH NON SLIP RUBBER MAT PLATFORM (14"X12")

- Gentle orbital motion for gel applications
- Horizontally circular 19mm orbit for aeration & mixing
- Large 14 x 12" work surface
- Variable speed control from 3 to 70 rpm
- Incubator and cold room safe

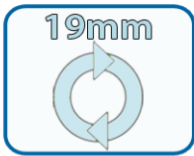
The Orbi-Blotter™ features a gentle orbital motion with speed control down to as little as 3 rpm, making it the ideal orbital choice for low speed applications, such as blotting, washing, staining/destaining, etc. A large 14×12 in. work surface is included along with a non-slip rubber mat for holding trays, dishes, plates and other flat vessels. An optional stacking platform can be purchased as an accessory, effectively doubling the usable work surface. The maintenance free, brushless motor is capable of loads up to 2kg and is safe for use in cold rooms and incubators.

Technical Specifications

Speed Range	Variable 3 to 70 rpm
Orbit	19mm
Timer	1 min. to 99 hr or continuous
Platform Size	14 x 12 in. / 35 x 30 cm
Load Capacity	3 x 2L or 9 lbs (4kg)
Operating Temp. Range	+4°C to +50°C
Dimensions	35.5 x 30.5 x 20 cm (14" x 12 x 8")
Weight	7.5 lbs (3.4 kg)
Electrical	115 or 230V 50-60Hz; 50W
Power	50 W

Ordering Information

Catalog #	Description:
BT30	Orbi-Blotter low speed Orbital Shaker with non-slip rubber mat
BR2000-STACK	Stacking Platform 14"x12" (clearance 2.75")
STACK-PLIS	Platform extension set, increase platform clearance by 1.25"



19mm Orbital Motion



Optional Stacking Platform  
(Clearance: 3")

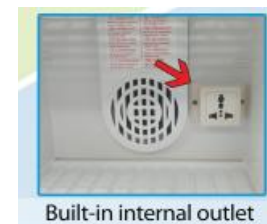


### MYTEMP™ MINI DIGITAL INCUBATORS

- **Digital temperature control**
- **Personal sized, 13 x 14.5" footprint (20 L)**
- **Accepts bottles and flasks up to 2 L**
- **Two models: Heat Only or Heat/Cool**

With digital temperature control, the MyTemp incubators provide convenient "set and walk away" operation, eliminating the need for external thermometers and repetitive "fine tuning" of an analog control knob. Simply choose the desired temperature and the incubator immediately begins to heat up (or cool down, -HC model only) while accurately monitoring the chamber temperature and conveniently displaying the temperature in real time on the large LED control panel.

Despite a modest footprint of 14.5 x 13", the MyTemp incubators feature large internal chambers, capable of storing flasks and bottles up to 2 Liters. In addition, the incubators include two adjustable shelves and an internal outlet for powering small shakers, rockers and other instrumentation. A mini nutating rocker (supplied with both flat and dimpled mats) is available for agitation of samples during incubation.



### Technical Specifications

<b>Temperature Range (H)</b>	5° above ambient to 60°C
<b>Temp. Range (HC)</b>	15°C below ambient to 60°C*
<b>Temperature Accuracy</b>	0.5°C (at 37°C)
<b>Temperature Uniformity</b>	± 1.5°C (at 37°C)
<b>Temperature Increments</b>	1°C
<b>Dimensions Exterior</b>	13.2 x 14.5 x 18.7 in / 33.5 x 37 x 47.5cm
<b>Dimensions Interior</b>	10.3 x 9.3 x 12.8 in / 26 x 23.5 x 32.5 cm
<b>Platform Dimensions (H3D1020)</b>	6 x 8 in.
<b>Operating Temp. Range (H3D1020)</b>	+5 to 45°C
<b>Capacity</b>	20L (0.75 ft³)
<b>Weight</b>	15 lbs / 6.5 kg
<b>Electrical</b>	100 to 240V 50-60Hz 70W

\* Minimum temperature is approx. 10°C in 25°C room temp.

### Ordering Information

Catalog #	Description:
<b>H2200-H</b>	myTemp™ Mini, heat only (ambient +5 to 60°C), incl. 2 shelves
<b>H2200-HC</b>	myTemp™ Mini, heat & cool (ambient -15 to 60°C), incl. 2 shelves
<b>H3D1020*</b>	MiniNutatingRocker, 8x6in. platform, 115V
<b>H2200-SH</b>	ExtraShelf, 10.5x8in.

**Electroporation Cuvettes Sterile, Individually Wrapped, Bag of 50 Cuvettes/Unit, Genesee Scientific**

- High-grade aluminum electrodes
- Scratch-free surface for uniform pulse delivery to the entire sample
- Cuvettes are available in three gap widths: 1mm, 2mm and 4mm to deliver the proper field strength to a variety of cell types
- 1mm Cuvette has a field strength of up to 25kV/cm for high efficiency transformation of E. coli
- 2mm cuvette has a field strength of up to 12.5kV/cm for transformation of yeast cells
- 4mm cuvette has a field strength of up to 6.25 kV/cm for transformation of Eukaryotic and Mammalian cells
- Compatible with ALL electroporators including Bio-Rad and Eppendorf!



Genesee brand electroporation cuvettes' high-grade aluminum electrodes are produced through a unique manufacturing process which ensures a scratch-free surface for uniform pulse delivery to the entire sample. The 1mm cuvette has the narrowest gap and shallow bottom for small sample volumes (40–80 µl) and very high field strength, used for yeast and bacterial transformation. Comes with a distinguishing white cap. 1mm cuvette: minimum volume 20µl / maximum volume 90µl

Cuvettes are available in three gap widths: 1mm, 2mm, and 4mm, to deliver the proper field strength to a variety of cell types. Use the 1mm cuvette to deliver pulses with the highest field strength, up to 25 kV/cm, for the high-efficiency electrotransformation of E. coli and other bacteria. For yeast transformation, generate pulses with a field strength up to 12.5 kV/cm using the 2mm cuvette. Mammalian cells typically require field strengths up to 6.25 kV/cm, which can be achieved using the 4mm cuvette.

C u v e t t e   C o m p a r i s o n   C h a r t

O r d e r i n g   I n f o r m a t i o n

Cuvette	40-100	40-101	40-102
Gap	1mm	2mm	4mm
Color Code	White	Blue	Red
Applications	E. Coli	Yeast Cells	Mammalian Cells and Eukaryotic Cells

Catalog #	Description	Packaging
40-100	1mm Cuvettes	1 Pack, 50 units
40-101	2mm Cuvettes	1 Pack, 50 units
40-102	4mm Cuvettes	1 Pack, 50 units



## Section 2

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# Azura Genomics™

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## DNA Polymerase Selection

Azura Genomics now produces one of the broadest portfolios of premium quality PCR Enzymes.

This includes the Azura Taq DNA Polymerase product range, a new generation of very high performance PCR products, designed for significant improvements to yield, sensitivity and speed.

Each DNA Polymerase has different characteristics and for optimal results, it is crucial to choose the enzyme that suits your individual application. For your convenience and to achieve optimal PCR, many of our most popular PCR enzymes are also available in practical, ready-to-use 2x mastermixes which contain polymerase, dNTPs, MgCl<sub>2</sub> and additional additives.

### Choosing the Right DNA Polymerase

Successful PCR depends on two crucial components, an optimized reaction buffer, and a high-quality, thermostable DNA polymerase (such as Taq DNA polymerase).

Four basic properties of DNA polymerases can help you define the best enzyme for your particular research needs:

**1. Thermal stability.** A denaturation step at approximately 95°C in each PCR cycle separates the two strands of a DNA molecule. DNA polymerase must be robust enough to tolerate high-temperature cycles without compromising activity, a factor dependant on buffer composition and pH.

**2. Extension rate.** This refers to the speed at which nucleotides are added, per second, per molecule of DNA polymerase, a factor determined by extension temperature, DNA template sequence and buffer composition. Early polymerases exhibited extension rates of about 1 kb per minute at 72°C, but contemporary enzymes are generally faster (approximately 4 kb per minute).

**3. Fidelity.** Fidelity is an inherent DNA polymerase property defining the frequency of insertion of an incorrect nucleotide per kb of DNA. For standard polymerases, fidelity refers to the ability to discriminate correct vs. incorrect nucleotide incorporation and can be influenced by the buffer composition. High-fidelity polymerases are more accurate because of the ability to "proofread" and excise incorrectly incorporated mononucleotides, replacing them with the correct base.

**4. Processivity.** The probability that a polymerase will detach from DNA during extension, indicating the average number of nucleotides the enzyme adds in a single binding event, is known as its processivity. Like extension rate, processivity depends on buffer composition (salt concentrations) and the sequence of a DNA template. High processivity is important when amplifying long amplicons.

Different configurations of these four variables have produced different classes of DNA polymerase, namely:

### Standard thermostable DNA polymerases

These polymerases are suitable for routine PCR, such as detection of amplified product and estimation of product size. Standard Taq produces fragments with a single-based 'A' overhang at the 3'-end, enabling direct insertion into T/A cloning vectors. Newer Taq DNA polymerases exhibit good processivity and fast extension rates but lack proofreading capabilities and so cannot be used for amplifying fragments for cloning and expression, or for mutagenesis studies.

### Hot-start (HS) polymerases

Hot-start DNA polymerases are used to suppress nonspecific product amplification during setup to increase yield of the desired product. This is because standard Taq can be active even on ice (4°C). When reaction components are mixed, primers can anneal nonspecifically to each other or to the template DNA. Taq can extend those nonspecific annealed primers, resulting in accumulation of nonspecific products and decreasing yields.

With hot-start PCR, the DNA polymerase is inactivated by a chemical modification or antibody that dissociates and becomes inactive when the temperature is raised. This greatly reduces nonspecific priming and primer-dimer formation and increases product yield. As chemical hot-start can require up to a 10-minute inactivation step, antibody hot-start is used for Fast PCR, which requires less than two minutes for inactivation.

Hot-start is useful when DNA template amounts are low, DNA templates are highly complex or several pairs of primers are used, as in multiplex PCR. Newer hot-start enzymes also exhibit good processivity and fast extension rates, but they lack proofreading ability and so cannot amplify DNA fragments for subsequent cloning or expression, or for mutagenesis studies.



## High Performance PCR Solutions

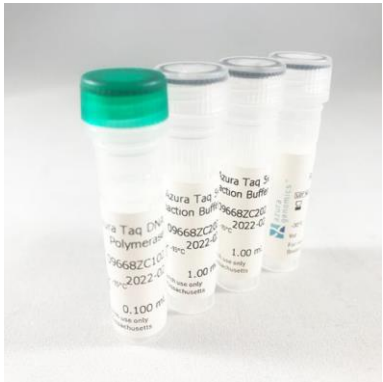
Invented in 1983 by Kary Mullis, end-point polymerase chain reaction (PCR) enables researchers to expand a single piece of DNA into millions of identical fragments. This well-established technique makes it possible to detect sequences that might otherwise be undetectable. In recent years, the molecular biologist has asked progressively more challenging questions and PCR applications and complexity have evolved. Azura Genomics provides a portfolio of premium-quality PCR enzymes and 2x master-mixes which deliver best-in-class sensitivity, speed and yield. Our technology includes the use of proprietary buffer compositions, stringent hot-start components, and convenient inert visualization and gel-loading dyes to simplify work-flows.

### Azura PCR Selection Guide

Description		Application	Overview	Page
DNA Polymerases				
Azura Taq DNA Polymerase	Is a highly efficient DNA Polymerase which exhibits increased affinity for template DNA and improved activity.	<ul style="list-style-type: none"><li>• High-throughput PCR</li><li>• Genotyping</li><li>• Colony PCR</li><li>• Fast PCR</li></ul>	Robust amplification across a wide range of templates and sequence complexity	60
Azura 2x Taq Mix	Is a ready-to-use master mix optimized for high-yield PCR amplification with a wide range of DNA templates.	<ul style="list-style-type: none"><li>• High-throughput PCR</li><li>• Genotyping</li><li>• Colony PCR</li><li>• Fast PCR</li></ul>	Robust amplification across a wide range of templates and sequence complexity	61
Azura 2x Taq Red Mix	Is a ready-to-use master mix optimized for high-yield PCR amplification with a wide range of DNA templates. <b>Contains inert red dye for direct gel-loading and electrophoresis tracking.</b>	<ul style="list-style-type: none"><li>• High-throughput PCR</li><li>• Genotyping</li><li>• Colony PCR</li><li>• Fast PCR</li></ul>	Robust amplification across a wide range of templates and sequence complexity	61
Azura 2x HS Taq Mix	is a ready-to-use master mix optimized for market-leading specificity with a wide range of DNA templates including difficult GC-rich targets.	<ul style="list-style-type: none"><li>• Multiplex PCR</li><li>• Fast PCR</li><li>• Genotyping</li><li>• Colony PCR</li><li>• Low-copy PCR</li><li>• Amplification of GC-rich DNA</li></ul>	Robust Hot-Start amplification across a wide range of templates and sequence complexity.	62
Azura 2x HS Taq Red Mix	Is a ready-to-use master mix optimized for market-leading specificity with a wide range of DNA templates including difficult GC-rich targets. <b>Contains inert red dye for direct gel-loading and electrophoresis tracking.</b>	<ul style="list-style-type: none"><li>• Multiplex PCR</li><li>• Fast PCR</li><li>• Genotyping</li><li>• Colony PCR</li><li>• Low-copy PCR</li><li>• Amplification of GC-rich DNA</li></ul>	Robust Hot-Start amplification across a wide range of templates and sequence complexity.	62
ExtremeTaq™ Polymerase	DNA is an enhanced formulation containing Taq Polymerase, proprietary enhancers, hot-start antibodies, and a proof-reading component for trouble-free PCR reaction assembly and consistent performance. ExtremeTaq Polymerase delivers a unique balance of PCR sensitivity, high fidelity, and value.	<ul style="list-style-type: none"><li>• Routine PCR</li><li>• Colony PCR</li><li>• TA Cloning</li><li>• Genotyping</li><li>• Low-Copy Number PCR</li><li>• PCR of Difficult DNA Templates (GC or AT-rich regions)</li><li>• High Fidelity PCR and Long PCR up to 10 kb.</li></ul>	High-Performance amplification of DNA extracted from human, animal, plant, bacteria, C. elegans, soil and water	63

Description	Application	Overview	Page
<b>DNA Polymerases</b>			
<b>ExtremeTaq™ HiFi Mix</b>  The Universal All-in-One PCR Mix for Everyday PCR ExtremeTaq™ HiFi Mix is an optimized 2x master-mix comprised of an enhanced Taq DNA Polymerase, optimized reaction buffer, MgCl <sub>2</sub> , and ultra-pure dNTPs. This versatile master-mix is ideally suited to all routine end-point PCR applications and challenging DNA targets such as complex GC-rich DNA and low-copy number samples.	<ul style="list-style-type: none"> <li>• Routine PCR</li> <li>• Genotyping</li> <li>• Colony PCR</li> <li>• PCR of Difficult DNA templates (GC or AT-rich regions)</li> <li>• Low-copy number PCR</li> <li>• TA Cloning</li> <li>• High-fidelity PCR and Long PCR up to 10 kb.</li> </ul>	High-Performance amplification of DNA extracted from human, animal, plant, bacteria, C. elegans, soil and water	64
<b>ExtremeTaq™ HiFi Red Mix</b>  The Universal All-in-One PCR Mix for Everyday PCR ExtremeTaq™ HiFi Mix is an optimized 2x master-mix comprised of an enhanced Taq DNA Polymerase, optimized reaction buffer, MgCl <sub>2</sub> , and ultra-pure dNTPs. This versatile master-mix is ideally suited to all routine end-point PCR applications and challenging DNA targets such as complex GC-rich DNA and low-copy number samples.  <b>Contains inert red dye for direct gel-loading and electrophoresis tracking.</b>	<ul style="list-style-type: none"> <li>• Routine PCR</li> <li>• Genotyping</li> <li>• Colony PCR</li> <li>• PCR of Difficult DNA templates (GC or AT-rich regions)</li> <li>• Low-copy number PCR</li> <li>• TA Cloning</li> <li>• High-fidelity PCR and Long PCR up to 10 kb.</li> </ul>	High-Performance amplification of DNA extracted from human, animal, plant, bacteria, C. elegans, soil and water	64
<b>TruFi™ DNA Polymerase</b>  Is a new generation, ultra high-fidelity DNA polymerase developed specifically to overcome the many disadvantages of conventional proof-reading enzymes such as poor sensitivity, significant inhibition in crude PCR assays, long extension times and the tedious optimization of buffer conditions and reaction parameters.	<ul style="list-style-type: none"> <li>• Cloning</li> <li>• crude sample PCR</li> <li>• Mutagenesis</li> <li>• next-generation re-sequencing</li> <li>• protein expression</li> <li>• Microarray</li> <li>• Long PCR up to 10 kb.</li> </ul>	Provides greater yields with lower enzyme amounts than other DNA polymerases, even in crude PCR reactions with known inhibitors.	65
<b>TruFi™ II DNA Polymerase</b>  Is an ultra-high fidelity proofreading DNA polymerase exhibiting both 5'→ 3' DNA polymerase activity and 3'→ 5' proofreading exonuclease activity, enabling the correction of mismatches during the amplification process.	<ul style="list-style-type: none"> <li>• Cloning</li> <li>• Crude Sample PCR</li> <li>• Mutagenesis</li> <li>• NGS Applications</li> <li>• Next-Generation Re-Sequencing</li> <li>• Protein Expression</li> <li>• Long PCR &gt; 15 kb</li> </ul>	Provides greater yields with lower enzyme amounts than other DNA polymerases, even in amplification of GC-rich targets, DNA of sub-optimal purity, and long templates. TruFi™ II Polymerase has a high elongation rate of 10 sec/kb, which is 4x faster than Taq.	66
<b>TruFi™ II Ultra 2x PCR Mix</b>  Is an optimized 2x master-mix comprised of TruFi™ II DNA Polymerase, optimized reaction buffer, MgCl <sub>2</sub> , and ultra-pure dNTPs.			67
<b>TruFi™ II Ultra 2x PCR Red Mix</b>  Is an optimized 2x master-mix comprised of TruFi™ II DNA Polymerase, optimized reaction buffer, MgCl <sub>2</sub> , ultra-pure dNTPs, and an inert red gel-loading dye.		Provides greater yields with less optimization than other 2x master-mixes, even in amplification of GC-rich targets, DNA of sub-optimal purity, and long templates. TruFi™ II Ultra 2x PCR Mix has a high elongation rate of 10 sec/kb, which is 4x faster than Taq.	67

Description	Application	Overview	Page	
DNA Polymerases				
HighTherm™ Reverse Transcriptase	Is an engineered mutant of MMLV providing increased specificity and exceptionally high cDNA yields even with complex RNA templates such as viral targets.	<ul style="list-style-type: none"><li>1-Step and 2-Step RT-qPCR</li><li>End-point RT-PCR</li><li>Array labelling, cDNA libraries</li><li>3' and 5' RACE</li></ul>	Efficiently synthesizes a complementary DNA strand from ssRNA, ssDNA or RNA:DNA hybrids with significantly reduced Ribonuclease H activity. HighTherm™ RT generates cDNA from 100 bp to > 12 Kb. Yield more representative full-length cDNA due to reduced RNase H activity (100 bp to > 12 Kb)	68
Azura 1-Step Ultra RT-PCR Kit	Has been formulated for cDNA synthesis and subsequent PCR in a single tube for end-point analysis. This new generation RT-PCR Kit consists of a thermostable reverse transcriptase, a potent RNase Inhibitor and Azura HS Taq for ultra-sensitive 1-step RT-PCR from as little as 1pg total RNA starting material. The kit also efficiently synthesizes double-stranded cDNA for subsequent gene expression analysis	<ul style="list-style-type: none"><li>Gene Expression analysis</li><li>Multiplex RT-PCR</li><li>Transcription analysis</li></ul>	Sensitivity: Optimized chemistry for detection of low-copy number transcripts Robust Overcomes secondary structure in problematic GC-rich targets Convenience First strand full-length cDNA synthesis and PCR in a single tube from a wide input range of total RNA	68
The AzuraQuant™ cDNA Synthesis Kit	Provides a rapid and sensitive method for generating high quality, qPCR-ready first-strand cDNA for use in downstream real-time PCR. The AzuraQuant™ cDNA Synthesis Kit exhibits highly reproducible, unbiased synthesis and representation of 5' and 3' mRNA ends. The Kit is supplied in a convenient, two tube format comprised of a 5x Buffer and 20x HighTherm™ reverse transcriptase blended with RNase inhibitor.	<ul style="list-style-type: none"><li>2-step RT-qPCR</li><li>2-step RT-PCR</li></ul>	Coupled with an optimized 5x Buffer system generates consistent, high-yield qPCR-ready cDNA. <b>Broad dynamic range:</b> Optimized for dilute and low-copy input RNA.	69
The Azura-Quant™ II cDNA Synthesis Kit	Has been developed for fast and sensitive first-strand cDNA Synthesis. The kit was developed to provide unbiased synthesis across a wide range of input RNA, up to 2 µg.	<ul style="list-style-type: none"><li>2-step RT-qPCR</li><li>2-step RT-PCR</li></ul>	Delivers both highly efficient first-strand synthesis and higher cDNA yields, leading to enhanced reproducibility and data accuracy. The kit is supplied in a convenient 2-tube format comprised of a 5x cDNA synthesis mix and 20x HighTherm™ II reverse transcriptase blended with RNase inhibitor. HighTherm™ II reverse transcriptase exhibits enhanced thermostability and processivity, low RNase H activity, and robust overall performance in cDNA synthesis.	69
The AzuraFlex™ cDNA Synthesis Kit	Is a complete and flexible system for efficient synthesis of first strand cDNA from Total RNA or mRNA templates. The MMLV-derived reverse transcriptase (High Capacity RTase) is modified for improved sensitivity with challenging templates, and greater thermostability.	<ul style="list-style-type: none"><li>Real-time PCR</li><li>Standard PCR</li><li>Microarrays</li></ul>	System generates consistent, high-yield qPCR-ready cDNA fragments up to 9Kb in length. Optimized for a wide range of input RNA of 10 pg to 2 µg Total RNA.	70



**Azura Taq DNA Polymerase**

Azura Taq DNA Polymerase is a highly efficient DNA Polymerase which exhibits increased affinity for template DNA and improved activity.

The recombinant enzyme and proprietary 5x buffer system deliver enhanced sensitivity, DNA yield and reaction speed with a wide range of templates including complex mammalian genomic DNA. Azura Taq DNA Polymerase catalyzes 5'→3' synthesis of DNA, has no detectable 3'→5' exonuclease (proofreading) activity and possesses 5'→3' exonuclease activity. In addition, the enzyme exhibits deoxynucleotidyl transferase activity, which results in the addition of extra adenines at the 3'-end of PCR products.

- Applications
- High-throughput PCR
- Genotyping
  - Colony PCR
  - Fast PCR

Universal

Robust amplification across a wide range of templates and sequence complexity

Convenience of Minimal Optimization

5x buffer system contains MgCl<sub>2</sub> and PCR enhancer

High Performance

Robust PCR results of amplicons 5 kb and shorter

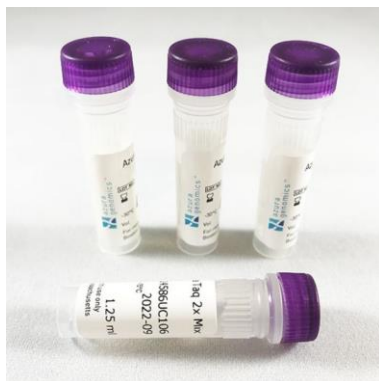
Flexibility

Available as ready-to-use 2x Taq Mix and 2x Taq Red Mix for reduced pipetting and improved sample throughput.

Ordering Information:

Catalog #	Description:	Pack Size
AZ-1205	Azura Taq DNA Polymerase	500u (5u/μl)
AZ-1210	Azura Taq DNA Polymerase	1000u (5u/μl)
AZ-1250	Azura Taq DNA Polymerase	5000u (5u/μl)

## Azura Genomics™ brand Reagents



### Azura 2x Taq Mix

Azura 2x Taq Mix is a ready-to-use master mix optimized for high-yield PCR amplification with a wide range of DNA templates.

The high-performance 2x formulation is comprised of Azura Taq polymerase, a proprietary PCR enhancer, and reaction buffer with optimal levels of dNTPs and  $MgCl_2$ . The easy-to-use Azura 2x Taq Mix

requires the addition of only template, primers and water and therefore reduces the number of pipetting steps for better reproducibility.

- **Applications:**

High-throughput PCR | Genotyping | Colony PCR | Fast PCR

- **Universal**

Robust amplification across a wide range of templates and sequence complexity

- **Convenience of Minimal Optimization**

Simply replace your existing 2x Taq mix

- **Ease-of-Use**

Pre-optimized 2x mix including dNTPs,  $MgCl_2$  and enhancer for complex templates

- **Flexibility**

Available as ready-to-use 2x Taq Mix and 2x Taq Red Mix for reduced pipetting and improved sample throughput.



### Azura 2x Taq Red Mix

Azura 2x Taq Red Mix is a ready-to-use master mix optimized for high-yield PCR amplification with a wide range of DNA templates.

The high-performance 2x formulation is comprised of Azura Taq polymerase, a proprietary PCR enhancer, and reaction buffer with optimal levels of dNTPs and  $MgCl_2$ . The easy-to-use Azura 2x Taq Red Mix requires the addition of only

template, primers and water and therefore reduces the number of pipetting steps for better reproducibility. In addition, the ready-to-use mix contains an inert red dye and high-density additive which allows samples to be loaded directly in agarose gels without additional gel loading or tracking dyes. The red dye migrates at the rate of 600 bp and 350 bp DNA in a 1% and 2% TAE agarose gels respectively.

- **Applications**

High-throughput PCR | Genotyping | Colony PCR | Fast PCR

- **Universal**

Robust amplification across a wide range of templates and sequence complexity

- **Convenience of Minimal Optimization**

Simply replace your existing 2x Taq mix

- **Ease-of-Use**

Contains inert red dye for direct gel-loading and electrophoresis tracking

- **Flexibility**

Available as ready-to-use 2x Taq Mix and 2x Taq Red Mix for reduced pipetting and improved sample throughput.

## Ordering Information

Catalog #	Description:	Pack Size
<b>AZ-1302</b>	Azura 2x Taq Mix 200 Reactions	4 x 1.25 ml
<b>AZ-1310</b>	Azura 2x Taq Mix 1000 Reactions	20 x 1.25 ml
<b>AZ-1320</b>	Azura 2x Taq Mix 2000 Reactions	10 x 5 ml

Catalog #	Description:	Pack Size
<b>AZ-1322</b>	Azura 2x Taq Red Mix 200 Reactions	4 x 1.25 ml
<b>AZ-1325</b>	Azura 2x Taq Red Mix 1000 Reactions	20 x 1.25 ml
<b>AZ-1326</b>	Azura 2x Taq Red Mix 2000 Reactions	10 x 5 ml



**Azura 2x HS Taq Mix**

Is a ready-to-use master mix optimized for market-leading specificity with a wide range of DNA templates including difficult GC-rich targets.

The high-performance 2x formulation is comprised of Azura HS Taq polymerase, hot-start antibodies, a proprietary PCR enhancer, and reaction buffer with optimal levels of dNTPs and  $MgCl_2$ . The highly advanced Azura 2x HS Taq Mix

chemistry allows fast cycling conditions to be used with greater efficiency and reproducibility.

- **Applications**

Multiplex PCR | Fast PCR | Genotyping | Colony PCR | Low-copy PCR | Amplification of GC-rich DNA

- **Universal**

Robust Hot-Start amplification across a wide range of templates and sequence complexity.

- **Convenience of Minimal Optimization**

Simply replace your existing 2x hot-start mix.

- **Ease-of-Use**

Pre-optimized 2x mix including dNTPs,  $MgCl_2$  and enhancer for difficult templates.

- **Flexibility**

Available as ready-to-use 2x HS Taq Mix and 2x HS Taq Red Mix for reduced pipetting and improved sample throughput.

**Azura 2x HS Taq Red Mix**

Is a ready-to-use master mix optimized for market-leading specificity with a wide range of DNA templates including difficult GC-rich targets.

The high-performance 2x formulation is comprised of Azura HS Taq polymerase, hot-start antibodies, a proprietary PCR enhancer, and reaction buffer with optimal levels of dNTPs and  $MgCl_2$ . The highly advanced Azura 2x HS Taq Red Mix chemistry allows fast cycling conditions to be used with greater efficiency and reproducibility. In addition, the ready-to-use mix contains an inert red dye and high-density additive which allows samples to be loaded directly in agarose gels without additional gel loading or tracking dyes. The red dye migrates at the rate of 600 bp and 350 bp DNA in a 1% and 2% TAE agarose gels respectively.

- **Applications:**

Multiplex PCR | Fast PCR | Genotyping | Colony PCR | Low-copy PCR | Amplification of GC-rich DNA

- **Universal:** Robust Hot-Start amplification across a wide range of templates and sequence complexity.

- **Convenience of Minimal Optimization**

Simply replace your existing 2x hot-start mix.

- **Ease-of-Use:** Contains inert red dye for direct gel-loading and electrophoresis tracking.

- **Flexibility:** Available as ready-to-use 2x HS Taq Mix and 2x HS Taq Red Mix for reduced pipetting and improved sample throughput.

**Ordering Information**

Catalog #	Description:	Pack Size
<b>AZ-1602</b>	Azura 2x HS Taq Mix 200 Reactions	4 x 1.25 ml
<b>AZ-1610</b>	Azura 2x HS Taq Mix 1000 Reactions	20 x 1.25 ml
<b>AZ-1620</b>	Azura 2x HS Taq Mix 2000 Reactions	10 x 5 ml

Catalog #	Description:	Pack Size
<b>AZ-1622</b>	Azura 2x HS Taq Red Mix 200 Reactions	4 x 1.25 ml
<b>AZ-1625</b>	Azura 2x HS Taq Red Mix 1000 Reactions	20 x 1.25 ml
<b>AZ-1626</b>	Azura 2x HS Taq Red Mix 2000 Reactions	10 x 5 ml



### ExtremeTaq™ DNA Polymerase

Is an enhanced formulation containing Taq Polymerase, proprietary enhancers, hot-start antibodies, and a proof-reading component for trouble-free PCR reaction assembly and consistent performance. ExtremeTaq Polymerase delivers a unique balance of PCR sensitivity, high fidelity, and value.

ExtremeTaq™ DNA Polymerase provides excellent performance with plasmid DNA, cDNA and complex mammalian DNA, and exhibits up to 10x higher fidelity than Taq Polymerase. The highly efficient buffer and hot-start blend provide the ideal conditions for high-performance PCR and inactivity at room temperature, thereby eliminating non-specific amplification.

ExtremeTaq™ DNA Polymerase is also available in both colorless and red master mix format for direct gel loading.

- **Applications**

Routine PCR, Colony PCR, TA Cloning, Genotyping, Low-Copy Number PCR, PCR of Difficult DNA Templates (GC or AT-rich regions), High Fidelity PCR and Long PCR up to 10 kb.

- **Assay Flexibility and Accuracy**

With up to 10x the fidelity of Taq Polymerase, ExtremeTaq™ DNA Polymerase provides robust hot-start PCR in a wide range of applications

- **Robust Amplification**

Provides greater yields and specificity than other Taq Master-mixes, even in low-copy number assays, long PCR up to 10 kb, and in the presence of common PCR inhibitors

- **Convenience of Minimal Optimization**

ExtremeTaq™ DNA Polymerase is designed and optimized for ease-of-use and broad compatibility with DNA templates of various lengths and complexity, without the need for MgCl<sub>2</sub> optimization

- **Versatility**

High-Performance amplification of DNA extracted from human, animal, plant, bacteria, C. elegans, soil and water

Taq Red Mix for reduced pipetting and improved sample throughput.

### Ordering Information

Catalog #	Description:	Pack Size
<b>AZ-1905</b>	ExtremeTaq™ DNA Polymerase (With 5x Reaction Buffer)	500 U (5U/μL)
<b>AZ-1915</b>	ExtremeTaq™ DNA Polymerase (With 5x Reaction Buffer)	1000 U (5U/μL)
<b>AZ-1950</b>	ExtremeTaq™ DNA Polymerase (With 5x Reaction Buffer)	5000 U (5U/μL)



### ExtremeTaq™ HiFi Mix

The Universal All-in-One PCR Mix for Everyday PCR

ExtremeTaq™ HiFi Mix is an optimized 2x master-mix comprised of an enhanced Taq DNA Polymerase, optimized reaction buffer, MgCl<sub>2</sub>, and ultra-pure dNTPs. This versatile master-mix is ideally suited to all routine end-point PCR applications and challenging DNA targets such as complex GC-rich DNA and low-copy number samples.

The formulation contains Taq Polymerase, proprietary enhancers, hot-start antibodies, and a proof-reading component for trouble-free PCR reaction assembly and consistent performance. ExtremeTaq™ HiFi Mix delivers a unique balance of PCR sensitivity, high fidelity, and value. The ready-to-use ExtremeTaq™ HiFi Mix provides excellent performance with plasmid DNA, cDNA and complex mammalian DNA, and exhibits up to 10x higher fidelity than Taq polymerase. The highly efficient buffer and hot-start blend provide the ideal conditions for high-performance PCR and inactivity at room temperature, thereby eliminating non-specific amplification.

To enable convenience in most PCR applications and direct-to-gel analysis following amplification, we also offer ExtremeTaq™ HiFi Red Mix, a 2x master-mix version which includes an inert red gel-loading dye for direct-to-gel analysis. The red gel loading and tracking dye simplifies downstream gel analysis by allowing samples to be loaded directly in agarose gel wells. The red dye migrates at the rate of 600 bp and 350 bp DNA fragments in 1% and 2% TAE agarose gels, respectively.

- **Applications:** Routine PCR | Genotyping | Colony PCR | PCR of Difficult DNA templates (GC or AT-rich regions) | Low-copy number PCR | TA Cloning | High-fidelity PCR and Long PCR up to 10 kb.
- **Assay Flexibility and Accuracy:** With up to 10x the fidelity of Taq Polymerase, our ready-to-use 2x PCR mix provides robust hot-start PCR in a wide range of applications.
- **Robust Amplification:** Provides greater yields and specificity than other Taq master-mixes, even in low-copy number assays, long PCR up to 10 kb, and in the presence of common PCR inhibitors.
- **Convenience of Minimal Optimization:** ExtremeTaq™ HiFi Mix is designed and optimized for ease-of-use and broad compatibility with DNA templates of various lengths and complexity, without the need for MgCl<sub>2</sub> optimization.
- **Versatility:** High-performance amplification of DNA extracted from human, animal, plant, bacteria, C. elegans, soil and water.



### ExtremeTaq™ HiFi Red Mix

The Universal All-in-One PCR Mix for Everyday PCR.

ExtremeTaq™ HiFi Red Mix is an optimized 2x master-mix comprised of an enhanced Taq DNA Polymerase, optimized reaction buffer, MgCl<sub>2</sub>, ultra-pure dNTPs, and inert red gel-loading dye. This versatile master-mix is ideally suited to all routine end-point PCR applications and challenging DNA targets such as complex GC-rich DNA and low-copy number samples.

The formulation contains Taq Polymerase, proprietary enhancers, hot-start antibodies, and a proof-reading component for trouble-free PCR reaction assembly and consistent performance. ExtremeTaq HiFi Red Mix delivers a unique balance of PCR sensitivity, high fidelity, and value. The ready-to-use ExtremeTaq™ HiFi Red Mix provides excellent performance with plasmid DNA, cDNA and complex mammalian DNA, and exhibits up to 10x higher fidelity than Taq polymerase. The highly efficient buffer and hot-start blend provide the ideal conditions for high-performance PCR and inactivity at room temperature, thereby eliminating non-specific amplification.

ExtremeTaq™ HiFi Red Mix also contains an inert red gel loading and tracking dye which simplifies downstream gel analysis by allowing samples to be loaded directly in agarose gel wells. The red dye migrates at the rate of 600 bp and 350 bp DNA fragments in 1% and 2% TAE agarose gels, respectively. To enable convenience in most PCR applications and direct-to-gel analysis following amplification, we suggest ExtremeTaq™ HiFi Red Mix. For post-amplification analysis by fluorescence or absorbance without prior DNA purification, a colorless version, ExtremeTaq™ HiFi Mix, is also available.

- **Applications:** Routine PCR | Genotyping | Colony PCR | PCR of Difficult DNA templates (GC or AT-rich regions) | Low-copy number PCR | TA Cloning | High-fidelity PCR and Long PCR up to 10 kb.

**Assay Flexibility and Accuracy:** With up to 10x the fidelity of Taq Polymerase, our ready-to-use 2x PCR mix provides robust hot-start PCR in a wide range of applications.

- **Robust Amplification:** Provides greater yields and specificity than other Taq master-mixes, even in low-copy number assays, long PCR up to 10 kb, and in the presence of common PCR inhibitors.
- **Convenience of Minimal Optimization:** ExtremeTaq™ HiFi Red Mix is designed and optimized for ease-of-use and broad compatibility with DNA templates of various lengths and complexity, without the need for MgCl<sub>2</sub> optimization.

**Versatility:** High-performance amplification of DNA extracted from human, animal, plant, bacteria, C. elegans, soil and water.

## Ordering Information

Catalog #	Description:	Pack Size
<b>AZ-1900</b>	ExtremeTaq HiFi Mix 200 Reactions	2 x 1.25 ml
<b>AZ-1901</b>	ExtremeTaq HiFi Mix 1000 Reactions	10 x 1.25 ml
<b>AZ-1902</b>	ExtremeTaq HiFi Mix 2000 Reactions	20 x 1.25 ml

Catalog #	Description:	Pack Size
<b>AZ-1622</b>	Azura 2x HS Taq Red Mix 200 Reactions	4 x 1.25 ml
<b>AZ-1625</b>	Azura 2x HS Taq Red Mix 1000 Reactions	20 x 1.25 ml
<b>AZ-1626</b>	Azura 2x HS Taq Red Mix 2000 Reactions	10 x 5 ml



### TruFi™ DNA Polymerase

Is a new generation, ultra high-fidelity DNA polymerase developed specifically to overcome the many disadvantages of conventional proof-reading enzymes such as poor sensitivity, significant inhibition in crude PCR assays, long extension times and the tedious optimization of buffer conditions and reaction parameters.

Catalog #	Description:	Pack Size
<b>AZ-1702</b>	TruFi DNA Polymerase	200u (2u/μl)
<b>AZ-1710</b>	TruFi DNA Polymerase	1000u (2u/μl)

TruFi™ DNA Polymerase exhibits robust 5' - 3' DNA polymerase activity and 3' - 5' proof-reading exonuclease activity with an error-rate of  $4.55 \times 10^{-7}$ . Several point mutations have selectively modified specific amino acid residues in order to improve protein solubility and performance across a wide range of ionic conditions. TruFi™ DNA Polymerase is provided with a companion 5x reaction buffer delivering superior performance with minimal optimization across a broad range of DNA amplicons, regardless of high AT or GC content. In addition, the hydrophilic nature of TruFi™ provides for significant improvements to reaction processivity for faster cycling, greater sensitivity and less inhibition with crude DNA samples.

### Applications

High-fidelity PCR for cloning, crude sample PCR, mutagenesis, next-generation re-sequencing, protein expression, microarray, and long PCR up to 10 kb.

### Ultra High-Fidelity

> 50-fold higher fidelity than wild-type Taq Polymerase

### Robust Amplification

Provides greater yields with lower enzyme amounts than other DNA polymerases, even in crude PCR reactions with known inhibitors.

### Convenience of Minimal Optimization

Two-component presentation for ease of use and greater reproducibility - TruFi™ DNA Polymerase is provided with a complete 5x reaction buffer inclusive of GC enhancers, optimal levels of dNTP and  $MgCl_2$ , and a high ionic strength for broad compatibility with amplicon size and complexity.

### Components

TruFi™ Polymerase and 5x TruFi™ Buffer



### TruFi™ II DNA Polymerase

Is an ultra-high fidelity proofreading DNA polymerase exhibiting both 5'→ 3' DNA polymerase activity and 3'→ 5' proofreading exonuclease activity, enabling the correction of mismatches during the amplification process.

Catalog #	Description:	Pack Size
<b>AZ-1720</b>	TruFi™ II DNA Polymerase	200 U (2U/μL)
<b>AZ-1750</b>	TruFi™ II DNA Polymerase	1000 U (2U/μL)

The DNA binding domain of this polymerase ensures robust amplification and more reliable results with a broad range of amplicons (from high AT to high GC). In addition, TruFi™ II DNA Polymerase possesses a rapid elongation rate of 10 seconds per kb, and is highly efficient in long PCR with amplicons greater than 15 kb. With an error rate which is greater than 65x lower than Taq Polymerase, TruFi™ II DNA Polymerase is recommended for applications which require extremely high fidelity such as cloning, NGS applications, and mutagenesis.

To enable convenience in most PCR applications and direct-to-gel analysis following amplification, we also offer TruFi™ II Ultra 2x PCR Red Mix and TruFi II Ultra 2x PCR Mix.

### Applications

Ultra-high fidelity PCR for Cloning, Crude Sample PCR, Mutagenesis, NGS Applications, Next-Generation Re-Sequencing, Protein Expression, and Long PCR > 15 kb.

### Ultra High-Fidelity

This polymerase has a fidelity that is >65x higher than Taq Polymerase and exhibits both 5'→ 3' DNA polymerase activity and 3'→ 5' proofreading exonuclease activity.

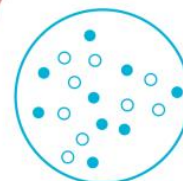
### Robust Amplification

TruFi™ II Polymerase provides greater yields with lower enzyme amounts than other DNA polymerases, even in amplification of GC-rich targets, DNA of sub-optimal purity, and long templates. TruFi™ II Polymerase has a high elongation rate of 10 sec/kb, which is 4x faster than Taq.

### Convenience of Minimal Optimization

TruFi™ II DNA Polymerase is supplied with a convenient 5x reaction buffer including an optimal level of MgCl<sub>2</sub>. The polymerase is also available in a colorless and red 2x master-mix format for direct gel-loading.



**Applications**

- Cloning
- Crude Sample PCR
- Mutagenesis
- NGS Applications
- Next-Generation Re-Sequencing
- Protein Expression
- Long PCR > 15 kb

**Precision and Versatility in Ultra-High Fidelity PCR**

TruFi™ II Ultra 2x PCR Mix is an optimized 2x master-mix comprised of TruFi™ II DNA Polymerase, optimized reaction buffer, MgCl<sub>2</sub>, and ultra-pure dNTPs. TruFi™ II Ultra 2x PCR Mix is ideal for fast cycling, as the polymerase exhibits a rapid elongation rate of 10 seconds per kb. The ready-to-use 2x mix is also highly efficient in long PCR with amplicons greater than 15 kb. With an error rate which is greater than 65x lower than Taq Polymerase, TruFi™ II Ultra 2x PCR Mix is recommended for applications which require extremely high fidelity such as cloning, NGS applications, and mutagenesis. To enable convenience in most PCR applications and direct-to-gel analysis following amplification, we also offer TruFi™ II Ultra 2x PCR Red Mix, a 2x master-mix version which includes an inert red gelloading dye for direct-to-gel analysis. The red gel loading and tracking dye simplifies downstream gel analysis by allowing samples to be loaded directly in agarose gel wells. The red dye front migrates at the rate of 1000 bp - 2000 bp DNA fragments in 0.5% to 1.5% agarose gels.

Fig 1. \*Fidelity values of TruFi™ II DNA Polymerase, Pfu DNA Polymerase and Taq DNA Polymerase were measured

	Fidelity (x Taq)	Error Rate
Taq Polymerase	1x	$5 \times 10^{-4}$
Pfu DNA Polymerase	5x	$1.1 \times 10^{-4}$
TruFi™ II DNA Polymerase	65x	Below detection limit*
Phusion® DNA Polymerase	65x	Below detection limit*
Q5® DNA Polymerase	65x	Below detection limit*

using a novel NGS -based method. Due to statistical limitations of the method, it was not possible to determine values which are more than 65-fold the fidelity of Taq

**Ultra High-Fidelity**

TruFi™ II Ultra 2x PCR Mix exhibits fidelity that is >65x higher than Taq Polymerase and exhibits both 5'→ 3' DNA polymerase activity and 3'→ 5' proofreading exonuclease activity

**Robust Amplification**

TruFi™ II Ultra 2x PCR Mix provides greater yields with less optimization than other 2x master-mixes, even in amplification of GC-rich targets, DNA of sub-optimal purity, and long templates. TruFi™ II Ultra 2x PCR Mix has a high elongation rate of 10 sec/kb, which is 4x faster than Taq

**Convenience of Minimal Optimization**

Available in 2x ready-to-use colorless and red master-mix format for direct gel-loading and high-throughput

**Ordering Information**

Catalog	Description	Pack Size
<b>AZ-1920</b>	TruFi™ II Ultra 2x PCR Mix	100 Reactions / 2 x 1.25 mL
<b>AZ-1921</b>	TruFi™ II Ultra 2x PCR Mix	500 Reactions / 10 x 1.25 mL
<b>AZ-1922</b>	TruFi™ II Ultra 2x PCR Mix	1,000 Reactions / 20 x 1.25 mL
<b>AZ-1930</b>	TruFi™ II Ultra 2x PCR Red Mix	100 Reactions / 2 x 1.25 mL
<b>AZ-1931</b>	TruFi™ II Ultra 2x PCR Red Mix	500 Reactions / 10 x 1.25 mL
<b>AZ-1932</b>	TruFi™ II Ultra 2x PCR Red Mix	1,000 Reactions / 20 x 1.25 mL



### HighTherm™ Reverse Transcriptase

Is an engineered mutant of MMLV providing increased specificity and exceptionally high cDNA yields even with complex RNA templates such as viral targets.

Catalog #	Pack Size
<b>AZ-1991</b>	10,000u (200u/μl)
<b>AZ-1994</b>	40,000u (200u/μl)

HighTherm™ Reverse Transcriptase is an engineered mutant of MMLV providing increased specificity and exceptionally high cDNA yields even with complex RNA templates such as viral targets. This novel enzyme is fully functional across a wide temperature range of 38°C to 55°C which enables excellent assay flexibility and high temperature cDNA synthesis for complex RNA secondary structures.

HighTherm™ Reverse Transcriptase efficiently synthesizes a complementary DNA strand from ssRNA, ssDNA or RNA:DNA hybrids with significantly reduced Ribonuclease H activity. HighTherm™ RT generates cDNA from 100 bp to > 12 Kb.

#### Applications

1-Step and 2-Step RT-qPCR, end-point RT-PCR, array labelling, cDNA libraries, 3' and 5' RACE

Yield more representative full-length cDNA due to reduced RNase H activity (100 bp to > 12 Kb)

#### Sensitivity

reproducible cDNA synthesis from a wide range of template (1 pg to 5 μg of total RNA template)

#### Thermostability

retains greater than 90% of enzymatic activity following 50°C incubation for 60 minutes.

#### Components

HighTherm™ RT and 5x HighTherm™ Buffer



### Azura 1-Step Ultra RT-PCR Kit

Has been formulated for cDNA synthesis and subsequent PCR in a single tube for end-point analysis. This new generation RT-PCR Kit consists of a thermostable reverse transcriptase, a potent RNase Inhibitor and Azura HS Taq for ultra-sensitive 1-step RT-PCR from as little as 1pg total RNA starting material.

The kit also efficiently synthesizes double-stranded cDNA for subsequent gene expression analysis

The advanced and highly optimized buffer chemistry allows for efficient reverse transcriptase and PCR of problematic sequences with significant secondary structure (GC-rich targets). The Azura 1-Step Ultra RT-PCR Kit is ideal for determining the presence or absence of RNA templates and quantifying expression through qualitative analysis of RNA transcription levels.

#### Applications

##### Gene Expression analysis

- Multiplex RT-PCR
- Transcription analysis

#### Sensitivity

Optimized chemistry for detection of low-copy number transcripts

#### Robust

Overcomes secondary structure in problematic GC-rich targets

#### Convenience

First strand full-length cDNA synthesis and PCR in a single tube from a wide input range of total RNA

Catalog #	Description:	Pack Size
<b>AZ-1825</b>	Azura 1-Step Ultra RT-PCR Kit	50 Reactions
<b>AZ-1826</b>	Azura 1-Step Ultra RT-PCR Kit	100 Reactions



### AzuraQuant™ cDNA Synthesis Kit

Provides a rapid and sensitive method for generating high quality, qPCR-ready first-strand cDNA for use in downstream real-time PCR. The AzuraQuant™ cDNA Synthesis Kit exhibits highly reproducible, unbiased synthesis and representation of 5' and 3' mRNA ends.

The Kit is supplied in a convenient, two tube format comprised of a 5x Buffer and 20x HighTherm™ reverse transcriptase blended with RNase inhibitor.

The kit was developed to provide consistent linearity across a wide range of input RNA, revealing accurate relative cDNA representation, regardless of gene abundance. HighTherm™ reverse transcriptase which provides exceptional thermostability is blended with a potent RNase inhibitor to ensure high integrity of Total RNA starting material.

The AzuraQuant™ cDNA Synthesis Kit is supplied with a high-performance 5x buffer system including an optimized ratio of random hexamer primers and anchored oligo (dT) primers which delivers unbiased, efficient and sensitive cDNA synthesis. The AzuraQuant™ cDNA Synthesis Kit delivers both highly efficient first-strand synthesis and higher cDNA yields, leading to enhanced reproducibility and data accuracy. The AzuraQuant™ cDNA Synthesis Kit provides an ideal chemistry for success with limited starting material, such as tissue biopsies.

#### Applications

- 2-step RT-qPCR
- 2-step RT-PCR

Catalog	Pack Size
<b>AZ-1995</b>	25 Reactions
<b>AZ-1996</b>	100 Reactions
<b>AZ-1995-50</b>	500 Reactions

#### Unbiased sensitive cDNA synthesis

Complete 5' to 3' RNA sequence representation from as little as 4 pg Total RNA

#### Reproducible

HighTherm™ reverse transcriptase coupled with an optimized 5x Buffer system generates consistent, high-yield qPCR-ready cDNA.

#### Broad dynamic range

Optimized for dilute and low-copy input RNA.



### AzuraQuant™ II cDNA Synthesis Kit

Has been developed for fast and sensitive first-strand cDNA Synthesis. The kit was developed to provide unbiased synthesis across a wide range of input RNA, up to 2 µg.

The AzuraQuant™ II cDNA Synthesis Kit is supplied with a high-performance 5x cDNA synthesis mix including an optimized ratio of random hexamer primers and anchored oligo (dT) primers, which delivers excellent consistency. The AzuraQuant™ II cDNA Synthesis Kit delivers both highly efficient first-strand synthesis and higher cDNA yields, leading to enhanced reproducibility and data accuracy. The kit is supplied in a convenient 2-tube format comprised of a 5x cDNA synthesis mix and 20x HighTherm™ II reverse transcriptase blended with RNase inhibitor. HighTherm™ II reverse transcriptase exhibits enhanced thermostability and processivity, low RNase H activity, and robust overall performance in cDNA synthesis.

#### Applications

- 2-step RT-qPCR
- 2-step RT-PCR

Catalog	Pack Size
<b>AZ-2501</b>	25 Reactions
<b>AZ-2504</b>	100 Reactions
<b>AZ-2520</b>	500 Reactions

#### Convenience

Two-tube format and simple 25 minute protocol  
Unbiased, Sensitive cDNA Synthesis  
Complete 5' to 3' RNA sequence representation from 4 pg to 2µg Total RNA

#### Reproducible

HighTherm™ II reverse transcriptase coupled with an optimized 5x cDNA Buffer system for consistent, high-yield qPCR-ready cDNA.

#### Broad dynamic range

High-yield cDNA synthesis across a wide range of RNA concentrations.

# AzuraFlex™ cDNA Synthesis Kit

## •Applications

- 2-step RT-qPCR
- 2-step RT-PCR



## AzuraFlex™ cDNA Synthesis Kit

The AzuraFlex™ cDNA Synthesis Kit is a complete and flexible system for efficient synthesis of first strand cDNA from Total RNA or mRNA templates. The MMLVderived reverse transcriptase (High Capacity RTase) is modified for improved performance with challenging templates, capable of synthesizing cDNA up to 9Kb. The reverse transcriptase is blended with a potent RNase inhibitor for stability and greater reproducibility with challenging samples which may contain contaminants. The supplied 5x RTase buffer includes optimal levels of dNTPs and MgCl<sub>2</sub> to reduce pipetting steps and experimental variance.

- Includes separate solutions of random hexamer primers and oligo (dT) primers for assay flexibility.
- System generates consistent, high-yield qPCR-ready cDNA fragments up to 9Kb in length.
- Optimized for a wide range of input RNA of 10 pg to 2 µg Total RNA.
- Downstream applications include real-time PCR, standard PCR, and microarrays.
- Optimized 5x RTase Buffer Mix includes optimal levels of dNTPs and MgCl<sub>2</sub> for reduced pipetting steps.

### Flexible

Supplied in a four component kit format, including High Capacity Reverse Transcriptase, 5x RTase Buffer and separate solutions of random hexaprimers and oligo(dT) primers to allow flexible assay design.

### Sensitive cDNA synthesis from broad range of input RNA

High-performance cDNA synthesis from 10 pg to 2.0 µg Total RNA.

### Cost-effective

Low-cost option for generation of high-quality qPCRready cDNA

### Broad dynamic range

10-fold greater dynamic range than competitor kits

Catalog #	Description:	Pack Size
<b>AZ-1997</b>	AzuraFlex™ cDNA Synthesis Kit	200 Reactions
<b>AZ-1998</b>	AzuraFlex™ cDNA Synthesis Kit	1000 Reactions





Purity of dNTPs is essential for any PCR, Real-Time PCR and cDNA Synthesis application as inhibitors and contaminants can interfere with DNA polymerases and template. PureStrand™ Ultra-Pure dNTPs are purified using exacting processes to eliminate the presence of PCR-specific inhibitors such as tetraphosphates and pyrophosphates. The presence of contaminating impurities can result in a decrease in amplification sensitivity and product yield.

The performance of each lot of PureStrand **dNTP Set** is tested in PCR, long PCR and qPCR for sensitivity and reproducibility.

The performance of each lot of PureStrand 40 mM **dNTP Mix** is tested in PCR, long PCR and qPCR for sensitivity and reproducibility.

For availability and pricing of bulk dNTPs, please contact us.

- >99% Triphosphate Purity by HPLC
- Free of contaminating impurities and PCR inhibitors
- DNase, RNase, Nickase and Protease Free
- **PureStrand™ 100 mM dNTP Set** Supplied as 25 µmol of each dATP, dCTP, dGTP and dTTP
- **PureStrand 40 mM dNTP Mix** is Supplied as ready-to-use 40 mM Mix in ultra-pure water, Reduces pipetting steps and risk of contamination
- Shelf-Life of 24 months at -20°C

### Usage Guidelines

- **PureStrand™ 100 mM dNTP Set** is comprised of 4 individual solutions of 100mM (25 µmol each dNTP). We suggest the preparation of a 100x working solution by mixing equal volumes of all 4 individual solutions in a nuclease-free micro-centrifuge tube. The final solution would contain 25 mM of each nucleotide.
- **PureStrand 40 mM dNTP Mix** is comprised of 10 mM of each dNTP. We suggest the use of 1.25 µl of 40 mM dNTP Mix in 50µl PCR volumes and AZ-1261 is sufficient for 400 PCR reactions of 50µl.

### Related Products

#### Azura Genomics™ brand Taq polymerase

Our Taq polymerase is robust, reliable and a great value. See page of this section.



### PureStrand™ Ultra-Pure 100 mM dNTP Set

Individual Ultra-Pure dNTP Solutions of dATP, dCTP, dGTP and dTTP for use in all standard and sensitive PCR applications.

#### Ordering Information:

Catalog #	Description:	Pack Size
<b>dntP Set (dAtP, dctP, dGtP, dttP)</b>		
<b>AZ-1271</b>	PureStrand 100mM dNTP	Set 4 x 0.25 mL / 100 µmol
<b>AZ-1274</b>	PureStrand 100mM dNTP	Set 4 x 4 x 0.25 mL / 400 µmol



### PureStrand™ Ultra-Pure 40 mM dNTP Mix

Ready-to-Use PureStrand 40 mM dNTP Mix contains each nucleotide at a 10 mM concentration.

#### Ordering Information:

Catalog #	Description:	Pack Size
<b>dntP Mix (dAtP, dctP, dGtP, dttP)</b>		
<b>AZ-1261</b>	PureStrand 40mM dNTP Mix	1 x 0.5 mL / 20 µmol
<b>AZ-1264</b>	PureStrand 40mM dNTP Mix	4 x 0.5 mL / 80 µmol



## GUIDE FOR SELECTION OF LADDERS

Catalog	Size		Description	Separation Range	Page
<b>19-109</b>	200 Lanes	1x1.0 ml	Apex 100bp-Low DNA Ladder	100bp - 1kb	75
<b>19-131</b>	100 Lanes	1x0.5 ml	Apex ECON Low DNA Ladder	100bp - 1000bp	75
<b>42-429</b>	100 Lanes	1x0.5 ml	Apex DNA LadderII	100- 1,000bp	76
<b>42-430</b>	200 Lanes	1x1.0 ml			76
<b>42-431</b>	500 Lanes	1x2.5 ml			76
<b>AZ-1151</b>	100 Lanes	500µl	Azura PureView™ 50 bp DNA Ladder	50 – 1,500 bp	73
<b>AZ-1155</b>	200 Lanes	5 x 500µl			73
<b>AZ-1155-2</b>	500 Lanes	10 x 500µl			73
<b>19-130</b>	100 Lanes	0.5 ml	Apex ECON Mini DNA Ladder	100bp-300bp-500bp	76
<b>AZ-1131</b>	100 Lanes	500µl	Azura PureView™ 100 bp DNA Ladder	100 bp – 1.5 kb	73
<b>AZ-1135</b>	200 Lanes	5 x 500µl			73
<b>AZ-1135-2</b>	500 Lanes	10 x 500µl			73
<b>AZ-1121</b>	100 Lanes	500µl	PureView PCR DNA Ladder	100 bp – 2.0 kb	74
<b>AZ-1125</b>	200 Lanes	5 x 500µl			74
<b>AZ-1125-2</b>	500 Lanes	10 x 500µl			74
<b>19-117</b>	200Lanes	1 ml	Apex 100bp-Mid DNA Ladder	100bp - 3kb	77
<b>19-132</b>	100 Lanes	0.5 ml	Apex ECON PCR DNA Ladder	100bp - 3000bp	77
<b>42-433</b>	200 Lanes	1 ml	PCR Ladder	100 – 3,000	78
<b>42-434</b>	500 Lanes	2.5 ml			78
<b>19-113</b>	200 Lanes	1 ml	Apex 500bp DNA Ladder	500bp - 5kb	78
<b>42-424</b>	200 Lanes	1 ml	LadderIII	80 – 10,000 bp	79
<b>42-425</b>	500 Lanes	2.5 ml			79
<b>AZ-1101</b>	100 Lanes	500µl	Azura PureView™ 1kb DNA Ladder	250 bp - 10,000 bp	74
<b>AZ-1105</b>	500 Lanes	5 X 500µl			74
<b>AZ-1105-2</b>	1000 Lanes	10 X 500µl			74
<b>42-427</b>	200 Lanes	2x0.5 ml	Apex DNA Ladder I	200 - 12,000 bp	79
<b>42-428</b>	500 Lanes	5x0.5 ml			79
<b>19-115</b>	200 Lanes	1 ml	Apex 1 Kb DNA Ladder	1kb - 15kb	80

## DNA Ladder Selection

Azura PureView™ DNA Ladders are a complete range of cost-effective, ready-to-load molecular weight markers including loading buffer in a single tube, enabling simple and accurate DNA sizing. For easy visual identification and orientation, PureView™ DNA Ladders also contain high-intensity reference bands. The ready-to-load format minimizes the time spent thawing, diluting and adding tracking dye to the DNA ladder. Simply transfer 5 µl of PureView™ DNA Ladder from the vial to the gel.

Concentration: 0.1 mg/mL

### Azura PureView™ 50 bp DNA Ladder

- Easy size determination
- 17 sharp and bright bands from 50 bp – 1,500 bp
- Ready-to-use format
- Room-temperature stable for up to 6 months

Azura PureView™ DNA Ladders are a complete range of cost-effective, ready-to-load molecular weight markers including loading buffer in a single tube, enabling simple and accurate DNA sizing. For easy visual identification and orientation, PureView™ DNA Ladders also contain high-intensity reference bands. The ready-to-load format minimizes the time spent thawing, diluting and adding tracking dye to the DNA ladder. Simply transfer 5 µl of PureView™ DNA Ladder from the vial to the gel.

Concentration: 0.1 mg/mL

**Storage Conditions:** PureView™ 50 bp DNA Ladder is shipped at 4°C. On arrival, store at -20°C for 36 months, 4°C for 12 months or 25°C for up to 6 months.

**Quality Control:** PureView™ 50 bp DNA Ladder is extensively tested prior to release using a 2% agarose gel to verify the sharpness of each band and a spectrophotometer for DNA concentration.

**Protocol for Use:** Mix gently by inversion and use 5 µl per lane.

There is no need to add any additional loading buffer to the vial of ready-to-load PureView™ 50 bp DNA Ladder which contains Orange G tracking dye. Orange G tracking dye mimics the migration of a 50 bp dsDNA fragment during electrophoresis, allowing for real time monitoring.

Catalog	Description	Pack Size
<b>AZ-1151</b>	100 Lanes	500µl
<b>AZ-1155</b>	200 Lanes	5 x 500µl
<b>AZ-1155-2</b>	500 Lanes	10 x 500µl



### Azura PureView™ 100 bp DNA Ladder

- Easy size determination
- 11 sharp and bright bands from 100 bp – 1.5 kb
- Ready-to-use format with high-intensity reference bands at 1.5 kb and 500 bp
- Room-temperature stable for up to 6 months

Azura PureView™ DNA Ladders are a complete range of cost-effective, ready-to-load molecular weight markers including loading buffer in a single tube, enabling simple and accurate DNA sizing. For easy visual identification and orientation, PureView™ DNA Ladders also contain high-intensity reference bands. The ready-to-load format minimizes the time spent thawing, diluting and adding tracking dye to the DNA ladder. Simply transfer 5 µl of PureView™ DNA Ladder from the vial to the gel.

Concentration: 0.1 mg/mL

**Storage Conditions:** PureView™ 100 bp DNA Ladder is shipped at 4°C. On arrival, store at -20°C for 36 months, 4°C for 12 months or 25°C for up to 6 months.

**Quality Control:** PureView™ 100 bp DNA Ladder is extensively tested prior to release using a 2% agarose gel to verify the sharpness of each band and a spectrophotometer for DNA concentration.

**Protocol for Use:** Briefly vortex the tube and use **5 µl per lane**.

There is no need to add any additional loading buffer to the vial of ready-to-load PureView™ 100 bp DNA Ladder which contains two loading and tracking dyes. Xylene cyanol FF and Orange G mimic the migration of 4,000 bp and 50 bp DNA fragments during electrophoresis.



Catalog	Description	Pack Size
<b>AZ-1131</b>	100 Lanes	500µl
<b>AZ-1135</b>	200 Lanes	5 x 500µl
<b>AZ-1135-2</b>	500 Lanes	10 x 500µl

### PureView PCR DNA Ladder

- Easy size determination
- 6 sharp and bright bands from 100 bp – 2.0 kb
- Ready-to-use format with high-intensity reference band at 750 bp
- Room-temperature stable for up to 6 months

• Suitable for agarose and polyacrylamide gel electrophoresis

Azura PureView™ DNA Ladders are a complete range of cost-effective, ready-to-load molecular weight markers including loading buffer in a single tube, enabling simple and accurate DNA sizing. For easy visual identification and orientation, PureView™ DNA Ladders also contain high-intensity reference bands. The ready-to-load format minimizes the time spent thawing, diluting and adding tracking dye to the DNA ladder. Simply transfer 5 µl of PureView™ DNA Ladder from the vial to the gel.

Concentration: 0.1 mg/mL

**Storage Conditions:** PureView™ PCR DNA Ladder is shipped at 4°C. On arrival, store at -20°C for 36 months, 4°C for 12 months or 25°C for up to 6 months.

**Quality Control:** PureView™ PCR DNA Ladder is extensively tested prior to release using a 2% agarose gel and a 10% polyacrylamide gel to verify the sharpness of each band.

**Protocol for Use:** Briefly vortex the tube and use 5 µl per lane. There is no need to add any additional loading buffer to the vial of ready-to-load PureView™ PCR DNA Ladder which contains two loading and tracking dyes. Xylene cyanol FF and Orange G mimic the migration of 4,000 bp and 50 bp DNA fragments during electrophoresis.

Catalog	Description	Pack Size
AZ-1121	100 Lanes	500µl
AZ-1125	200 Lanes	5 x 500µl
AZ-1125-2	500 Lanes	10 x 500µl



### Azura PureView™ 1kb DNA Ladder

- Easy size determination
- 13 sharp and bright bands from 250 bp - 10,000 bp
- Ready-to-use format with high-intensity reference bands at 1000 bp and 3000 bp
- Room-temperature stable for up to 6 months

Azura PureView™ DNA Ladders are a complete range of cost-effective, ready-to-load molecular weight markers including loading buffer in a single tube, enabling simple and accurate DNA sizing. For easy visual identification and orientation, PureView™ DNA Ladders also contain high-intensity reference bands. The ready-to-load format minimizes the time spent thawing, diluting and adding tracking dye to the DNA ladder. Simply transfer 5 µl of PureView™ DNA Ladder from the vial to the gel.

Concentration: 0.1 mg/mL

**Storage Conditions:** PureView™ 1kb DNA Ladder is shipped at 4°C. On arrival, store at -20°C for 36 months, 4°C for 12 months or 25°C for up to 6 months.

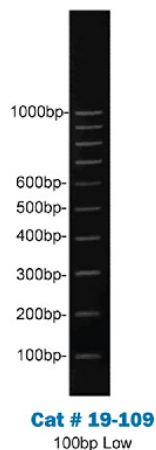
**Quality Control:** PureView™ 1kb DNA Ladder is extensively tested prior to release using a 1% agarose gel to verify the sharpness of each band and a spectrophotometer for DNA concentration.

#### Protocol for Use

Briefly vortex the tube and use **5 µl per lane**. There is no need to add any additional loading buffer to the vial of ready-to-load PureView™ 1 kb DNA Ladder which contains two loading and tracking dyes. Xylene cyanol FF and Bromophenol blue mimic the migration of 4,000 bp and 500 bp DNA fragments during electrophoresis.

Catalog	Description	Pack Size
AZ-1101	100 Lanes	500µl
AZ-1105	200 Lanes	5 x 500µl
AZ-1105-2	500 Lanes	10 x 500µl





### Apex 100bp-Low DNA Ladder, 200 Gel Lanes, 100bp - 1kb, Apex BioResearch Products 19-109

- Range: 100bp - 1kb in exact bp increments of 100bp
- No mixing required! Ladder and loading buffer in a single tube
- Suitable for estimating fragment length of dsDNA (size)
- Convenient reference point bands with increased intensity
- Contains Ficoll®, bromophenol blue and xylene cyanol
- Can be radiolabeled with T4 Kinase or Polymerase
- 32µg/ml

Apex ready-to-load DNA ladders are suitable for use in agarose gels with either TAE or TBE buffer systems. Ladders can be stained with ethidium bromide and other DNA stains. Guaranteed for 1 year at 4°C and room temp. stable for 3 months.

Most commercial DNA standards contain residual plasmid which contributes up to 45% of their quantity. However, Apex purified molecular weight markers do not contain any residual plasmid. So, the ug listed is 100% marker without extraneous DNA. 50% G-C content

This ladder is a dsDNA ladder suitable for sizing double-stranded DNA fragments. Apex purified molecular weight markers are premixed ladders and loading buffer in a single tube. No mixing is required. Apex molecular weight markers are 100% marker without extraneous DNA and do not contain any residual plasmid.

**Range** 100bp to 1 Kb in 100 base pair increments

**Reference Bands** N/A

**Composition of Storage Buffer** Supplied in ready-to-load format in modified Type II gel loading buffer: 15% w/v Ficoll 400 [GE Healthcare], 0.06% w/v Bromophenol blue, 0.06% w/v Xylene cyanol FF, 30mM EDTA

**Shipping and Storage Conditions** Apex custom DNA ladders may be kept safely at room temp. for at least 3 months. Ladders are guaranteed for 12 months from date of shipment when stored at 4°C. Shipped via overnight carrier at ambient temp.



ECON Low DNA Ladder. 5 µl ECON Low DNA Ladder was loaded on a 1.5 % agarose in 1x TBE and stained with ethidium bromide. Estimated concentrations of the DNA bands are indicated.

### Apex ECON Low DNA Ladder, 100 Lanes 100 - 1000bp, 0.5ml/Unit Apex BioResearch Products 19-131

- Economically priced DNA ladder for quick, routine confirmations
- Supplied in ready-to-load format for instant gel loading
- Bands at 100bp, 300bp, 500bp, 700bp, and 1000bp
- More intense reference band at 500bp for quick and easy identification
- Sufficient for 100 Lanes

**Description**

ECON Low DNA Ladder is a dsDNA ladder with bands from 100 bp to 1000 bp. The ladder is supplied in 5x loading buffer, ready-to-use on agarose and polyacrylamide gels. It is suitable with TBE, TAE, SB and LB electrophoresis systems. The 500 bp band of Econ Low DNA Ladder comes with a higher intensity and can be used as a reference point.

#### Key Features

- Molecular range from 100 to 1000 bp
- Convenient ready-to-use formulation
- 100 lanes of 5 µl

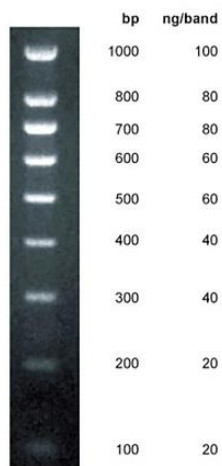
**Storage and Stability** Apex ECON DNA Ladders are guaranteed for 12 months when stored at 4°C. For long term storage, ECON DNA Ladders can be stored at -20°C freezer for up to 3 years. Apex ECON DNA Ladders may be kept safely at room temperature for at least 6 months from date of shipment.

**Quality control** Agarose gel analysis shows that all bands are present at the expected location and band intensity

#### Suggestions for use of ECON Low DNA Ladder

- Important: Mix ladder briefly before use. Do not heat the ladder.
- Load 5 µl of ladder per lane (for gel wells of ~5 – 10 mm width)
- Agarose gel electrophoresis: Prepare 1- 1.5 % gel. The dye should migrate 60 – 70% the length of the gel.
- Polyacrylamide gel electrophoresis: Prepare 8% gel. The dye should migrate approx. 90% the length of the gel.
- Ethidium bromide (0.5 µg/ml) is the recommended gel stain
- Avoid multiple freezing/thawing.
- For long term usage, aliquoting is recommended.

## DNA Ladder II



### Apex DNA Ladder II, 200 Lanes, 100-1,000bp Apex BioResearch Products

- Apex Quantitative Ladder
- Ladder 2, 200 Lanes, 100-1000bp
- Ready-to-use DNA ladder with loading buffer premixed in a single tube
- Enables accurate sizing and quantitation of DNA fragments
- Calibrated mass of DNA in each band for quantitative analysis
- Simply load the ladder directly from tube to gel. Suitable with both TAE and TBE 100µg/ml

This quantitative DNA ladder is suitable for sizing DNA fragments on agarose and acrylamide gels. The ladders can also be used to quantitate the amount of DNA in a sample since the mass of DNA in each band in the ladder to range 100 to 1000bp.

Ready to use on agarose gels and suitable with both TBE and TAE electrophoresis systems.

Catalog	Description	Pack Size
42-429	100 Lanes	0.5 ml
42-430	200 Lanes	1.0 ml
42-431	500 Lanes	2.5 ml



### Apex BioResearch Products 19-130 Apex ECON Mini DNA Ladder, 100 Lanes, 100bp-300bp-500bp, 0.5ml/Unit

*Reagent for in vitro laboratory use only*

- Economically priced DNA ladder for quick, routine confirmations
- Supplied in ready-to-load format for instant gel loading
- Bands at 100bp, 300bp, and 500bp
- Sufficient for 100 Lanes
- 4.8µg/ml

#### Description

ECON Mini DNA Ladder is a broad range dsDNA ladder with bands from 100 bp to 500 bp. The ladder is supplied in 5x loading buffer, ready-to-use on agarose and polyacrylamide gels. It is suitable with TBE, TAE, SB and LB electrophoresis systems. Key Features

- Molecular range from 100 bp to 500 bp
- Convenient ready-to-use formulation
- 100 lanes of 5 µl

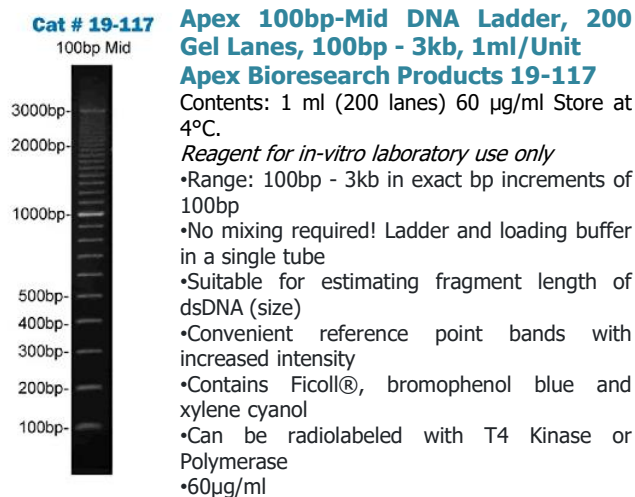
**Storage and Stability** Apex ECON DNA Ladders are guaranteed for 12 months when stored at 4°C. For long term storage, ECON DNA Ladders can be stored at -20°C freezer for up to 3 years. Apex ECON DNA Ladders may be kept safely at room temperature for at least 6 months from date of shipment. Quality control Agarose gel analysis shows that all bands are present at the expected location and band intensity.

#### Suggestions for use of ECON Mini DNA Ladder

- **Important:** Mix ladder briefly before use. Do not heat the ladder.
- Load 5 µl of ladder per lane (for gel wells of ~5 – 10 mm width)
- If band intensity is too high, then load a smaller volume of the ladder per lane.
- Agarose gel electrophoresis: Prepare 1- 1.5 % gel. The dye should migrate 60 – 70% the length of the gel.
- Polyacrylamide gel electrophoresis: Prepare 8% gel. The dye should migrate approx. 90% the length of the gel.
- Ethidium bromide (0.5 µg/ml) is the recommended gel stain
- Avoid multiple freezing/thawing. • For long term usage, aliquoting is recommended.

Catalog	Description	Pack Size
19-130	100 Lanes	0.5 ml



**Description**

This ladder is a dsDNA ladder suitable for sizing doublestranded DNA fragments. Apex purified molecular weight markers are premixed ladders and loading buffer in a single tube. No mixing is required. Apex molecular weight markers are 100% marker without extraneous DNA and do not contain any residual plasmid.

**Range** 100bp to 3 Kb in 100 base pair increments

**Reference Bands** Located at 1 Kb

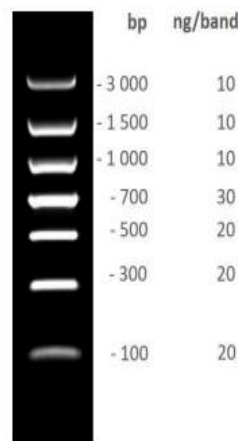
**Composition of Storage Buffer** Supplied in ready-to-load format in modified Type II gel loading buffer: 15% w/v Ficoll 400 [GE Healthcare], 0.06% w/v Bromphenol blue, 0.06% w/v Xylene cyanol FF, 30mM EDTA

**Shipping and Storage Conditions** Apex custom DNA ladders may be kept safely at room temp. for at least 3 months. Ladders are guaranteed for 12 months from date of shipment when stored at 4°C. Shipped via overnight carrier at ambient temp.

**Suggestion for use:**

- Important: Mix ladder briefly before use. Do not heat the ladder.
- Load 5 µL of ladder per lane (for gel wells of ~5- 10mm width).
- Agarose gel electrophoresis: Prepare a 1.5 – 3% gel.
- Ethidium bromide (0.5 µg/mL) is the recommended gel stain. Other DNA stains can be used if preferred.

Catalog	Description	Pack Size
19-117	200 Lanes	1 ml



**Apex ECON PCR DNA Ladder, 100 Lanes, 100 - 3000bp, 0.5ml/Unit**  
**Apex BioResearch Products 19-132**

*Reagent for in vitro laboratory use only*

- Economically priced DNA ladder for quick, routine confirmations
- Supplied in ready-to-load format for instant gel loading
- Bands at 100bp, 300bp, 500bp, 700bp, 1000bp, 1500bp, and 3000bp
- More intense reference band at 700bp for quick and easy identification
- Sufficient for 100 Lanes
- 11µg/ml

**Description**

ECON PCR Ladder is a broad range dsDNA ladder with bands from 100 bp to 3000 bp. The ladder is supplied in 5x loading buffer, ready-to-use on agarose and polyacrylamide gels. It is suitable with TBE, TAE, SB and LB electrophoresis systems. The 700 bp band of Econ PCR Ladder comes with a higher intensity and can be used as a reference point.

**Key Features**

- Molecular range from 100 bp to 3000 bp
- Convenient ready-to-use formulation
- 100 lanes of 5 µl

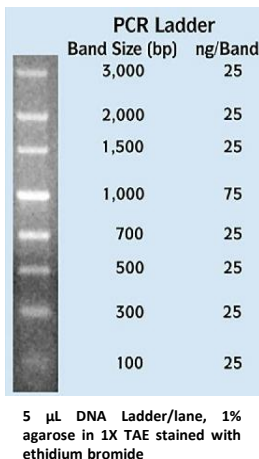
**Storage and Stability**

Apex ECON DNA Ladders are guaranteed for 12 months when stored at 4 °C. For long term storage, ECON DNA Ladders can be stored at -20 °C freezer for up to 3 years. Apex ECON DNA Ladders may be kept safely at room temperature for at least 6 months from date of shipment. Quality control Agarose gel analysis shows that all bands are present at the expected location and band intensity.

**Suggestions for use of ECON PCR Ladder**

- Important: Mix ladder briefly before use. Do not heat the ladder
- Load 5 µl of ladder per lane (for gel wells of ~5 – 10 mm width)
- Agarose gel electrophoresis: Prepare 1- 1.5 % gel. The dye should migrate 60 – 70 % the length of the gel.
- Polyacrylamide gel electrophoresis: Prepare 8 % gel. The dye should migrate approx. 90 % the length of the gel.
- Ethidium bromide (0.5 µg/ml) is the recommended gel stain
- Avoid multiple freezing/thawing.
- For long term usage, aliquoting is recommended

Catalog	Description	Pack Size
19-132	100 Lanes	0.5 ml



### Apex PCR DNA Ladder 100 - 3,000bp, Apex BioResearch Products

#### FOR RESEARCH USE ONLY

- Perfect choice for analysis of DNA fragments less than 3000bp
- Ready-to-load format - no mixing of ladder and loading dye required!
- All bands contain 25 ng except the 1000 bp band, which contains 75 ng
- The 1000bp band is thus more intense, serving as an easily identifiable reference point
  - Concentration: 50 $\mu$ g/ml (+/- 1%)

#### Description

PCR DNA Ladder is the perfect choice for analysis of DNA fragments less than 3000 bp. The ladder contains a total of eight bands ranging from 3000 to 100 bp. All bands contain 25 ng except the 1000 bp band, which contains 75 ng. The 1000bp band is

thus more intense, serving as an easily identifiable reference point. The 100 bp band may appear faint due to diffusion during electrophoresis. The ladder is supplied in loading buffer, ready-to-use on agarose and polyacrylamide gels. It is suitable with both TBE and TAE electrophoresis systems.

#### Composition of Storage Buffer

Supplied in ready-to-load format in modified Type IV gel loading buffer: Tris-EDTA, pH 8.5, 8% sucrose, 0.05% Bromophenol Blue.

#### Storage Conditions

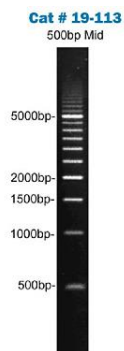
Apex custom DNA ladders may be kept safely at room temp. for at least 3 months. Ladders are guaranteed for 12 months from date of shipment when stored at 4°C. Aliquot product if necessary to avoid repeated freezing and thawing cycles. Quality Control Agarose gel analysis shows that all bands are present at the expected location and band intensity.

*Shipped at ambient temperature*

#### Suggestions for use

- Important: Mix ladder briefly before use. Do not heat the ladder.
- Load 5  $\mu$ L of ladder per lane (for gel wells of ~5-10mm width).
- Agarose gel electrophoresis: Prepare 1% gel. The dye should migrate 60 - 70% the length of the gel.
- Polyacrylamide gel electrophoresis: Prepare 8% gel. The dye should migrate approx. 90% the length of the gel.
- Ethidium bromide (0.5  $\mu$ g/mL) is the recommended gel stain.

Catalog	Description	Pack Size
42-433	200 Lanes	1 ml
42-434	500 Lanes	2.5 ml



### Apex 500bp DNA Ladder, 200 Gel Lanes, 500bp - 5kb, 1ml/Unit Apex BioResearch Products 19-113

#### Reagent for in vitro laboratory use only

- Range: 500bp - 5kb in exact bp increments of 500bp
- No mixing required! Ladder and loading buffer in a single tube
- Suitable for estimating fragment length of dsDNA (size)
- Convenient reference point bands with increased intensity
- Contains Ficoll®, bromophenol blue and xylene cyanol
- Can be radiolabeled with T4 Kinase or Polymerase
- 60 $\mu$ g/ml

#### Description

This ladder is a dsDNA ladder suitable for sizing double-stranded DNA fragments. Apex purified molecular weight markers are premixed ladders and loading buffer in a single tube. No mixing is required. Apex molecular weight markers are 100% marker without extraneous DNA and do not contain any residual plasmid.

**Range** 500 bp to 8 Kb in 500 base pair increments Reference Bands Located at 5 Kb

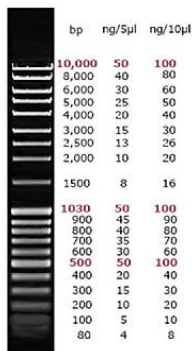
**Composition of Storage Buffer** Buffer Supplied in ready-to-load format in modified Type II gel loading buffer: 15% w/v Ficoll 400 [GE Healthcare], 0.06% w/v Bromophenol blue, 0.06% w/v Xylene cyanol FF, 30mM EDTA

**Shipping and Storage Conditions** Apex custom DNA ladders may be kept safely at room temp. for at least 3 months. Ladders are guaranteed for 12 months from date of shipment when stored at 4°C. Shipped via overnight carrier at ambient temp.

#### Suggestion for use:

- Important: Mix ladder briefly before use. Do not heat the ladder.
- Load 5  $\mu$ L of ladder per lane (for gel wells of ~5- 10mm width).
- Agarose gel electrophoresis: Prepare a 1 – 1.5% gel.
- Ethidium bromide (0.5  $\mu$ g/mL) is the recommended gel stain. Other DNA stains can be used if preferred.

Catalog	Description	Pack Size
19-113	200 Lanes	1 ml



5 µL DNA Ladder/lane, 1% agarose in 1X TAE stained with ethidium bromide

### Apex DNA Ladder III, 80bp - 10Kb, Apex BioResearch Products

FOR RESEARCH USE ONLY

- Apex Quick Load Quantitative DNA Ladder III
- 80bp - 10Kb
- Ready-to-use DNA ladder with loading buffer premixed in a single tube
- Enables accurate sizing and quantitation of DNA fragments
- Calibrated mass of DNA in each band for quantitative analysis
- Simply load the ladder directly from tube to gel. Suitable with both TAE and TBE
- 103µg/ml

#### Description

DNA Ladder III is a broad range dsDNA Ladder with bands from 80bp to 10Kb. The ladder can be used to quantitate the amount of DNA in a sample since the mass of DNA in each band in the ladder has been calibrated to range from 4 to 50ng (see figure). The ladder is supplied in "ready-to-load" format in modified Type IV gel loading buffer: Tris-EDTA, pH8.5, 8% sucrose, 0.05% Bromophenol Blue.

**Composition of Storage** Buffer Tris-EDTA, pH8.5, 8% sucrose, 0.05% Bromophenol Blue.

**Storage Conditions** Apex custom DNA ladders may be kept safely at room temp. for at least 3 months. Ladders are guaranteed for 12 months from date of shipment when stored at 4°C. Aliquot product if necessary to avoid repeated freezing and thawing cycles.

**Quality Control** Agarose gel analysis shows that all bands are present at the expected location and band intensity.

#### Suggestions for use

- Important: Mix ladder briefly before use. Do not heat the ladder.
- Load 5 µL of ladder per lane for gel wells of ~5- 10mm width. This translates to the indicated ng/band (see Fig.)
- Agarose gel electrophoresis: Prepare 1% gel. The dye should migrate 60 - 70% the length of the gel.
- Polyacrylamide gel electrophoresis: Prepare 8% gel. The dye should migrate approx. 90% the length of the gel. • Ethidium bromide (0.5 µg/mL) is the recommended gel stain.

Catalog	Description	Pack Size
42-424	200 Lanes	1 ml
42-425	500 Lanes	2.5 ml

DNA Ladder I



### DNA Ladder I, 200 Lanes, 200-12,000bp, Apex BioResearch Products

Reagent for in vitro laboratory use only

- Apex Quantitative Ladder
- Ready-to-use DNA ladder with loading buffer premixed in a single tube
- Enables accurate sizing and quantitation of DNA fragments
- Calibrated mass of DNA in each band for quantitative analysis
- Simply load the ladder directly from tube to gel. Suitable with both TAE and TBE
- 136µg/ml

#### Description

This quantitative DNA ladder is suitable for sizing DNA fragments on agarose and acrylamide gels. The ladders can also be used to quantitate the amount of DNA in a sample since the mass of DNA in each band in the ladder to range 200 to 12000bp

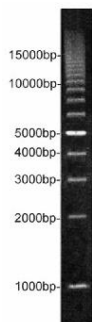
Ready to use on agarose gels and suitable with both TBE and TAE electrophoresis systems.

DNA Ladder I is a broad range dsDNA Ladder with bands from 200bp to 12Kb. The ladder can be used to quantitate the amount of DNA in a sample since the mass of DNA in each band in the ladder has been calibrated to range from 15 to 100ng (see figure). The ladder is supplied in "ready-to-load" format in modified Type IV gel loading buffer. Tris-EDTA, pH8.5, 8% sucrose, 0.05% Bromophenol Blue. **Composition of Storage** Buffer Tris-EDTA, pH8.5, 8% sucrose, 0.05% Bromophenol Blue.

**Storage Conditions** Apex custom DNA ladders may be kept safely at room temp. for at least 3 months. Ladders are guaranteed for 12 months from date of shipment when stored at 4°C. Aliquot product if necessary to avoid repeated freezing and thawing cycles.

**Quality Control** Agarose gel analysis shows that all bands are present at the expected location and band intensity

Catalog	Description	Pack Size
42-427	200 Lanes	2x0.5 ml
42-428	500 Lanes	5x0.5 ml



### Apex 1 Kb DNA Ladder, 200 Gel Lanes, 1kb - 15kb, 1 ml/Unit Apex BioResearch Products 19-115

#### FOR RESEARCH USE ONLY

- Range: 1kb - 15kb in exact base pair increments of 1 Kb
- No mixing required! Ladder and loading buffer in a single tube
- Suitable for estimating fragment length of dsDNA (size)
- Convenient reference point bands with increased intensity
- Contains Ficoll®, bromophenol blue and xylene cyanol
- Can be radiolabeled with T4 Kinase or Polymerase
- 50µg/ml

Cat # 19-115  
1Kb

#### Description

Apex ready-to-load DNA ladders are suitable for use in agarose gels with either TAE or TBE buffer systems. Ladders can be stained with ethidium bromide and other DNA stains. Guaranteed for 1 year at 4°C and room temp. stable for 3 months. Most commercial DNA standards contain residual plasmid which contributes up to 45% of their quantity. However, Apex purified molecular weight markers do not contain any residual plasmid. So, the ug listed is 100% marker without extraneous DNA. 50% G-C content

This ladder is a dsDNA ladder suitable for sizing double-stranded DNA fragments. Apex purified molecular weight markers are premixed ladders and loading buffer in a single tube. No mixing is required. Apex molecular weight markers are 100% marker without extraneous DNA and do not contain any residual plasmid.

**Range** 1 Kb to 15 Kb in 1 Kb increments

**Reference Bands** Located at 5 Kb

**Composition of Storage:** Buffer Supplied in ready-to-load format in modified Type II gel loading buffer: 15% w/v Ficoll 400 [GE Healthcare], 0.06% w/v Bromphenol blue, 0.06% w/v Xylene cyanol FF, 30mM EDTA

#### Shipping and Storage Conditions

Apex custom DNA ladders may be kept safely at room temp. for at least 3 months. Ladders are guaranteed for 12 months from date of shipment when stored at 4°C. Shipped via overnight carrier at ambient temp.

#### Suggestion for use:

- Important: Mix ladder briefly before use. Do not heat the ladder.
- Load 5 µL of ladder per lane (for gel wells of ~5- 10mm width).
- Agarose gel electrophoresis: Prepare a 1 – 1.5% gel.
- Ethidium bromide (0.5 µg/mL) is the recommended gel stain. Other DNA stains can be used if preferred.

#### Factors Influencing Resolution and Accurate Sizing of DNA Fragments

1. DNA loading: For accurate size determinations, load the smallest practical amount of sample DNA – e.g., 10-20ng of a single fragment is readily visible and will yield a sharp, accurately sizable band.
2. Well thickness: For best resolution of DNA bands, use only properly formed sample wells, up to 1mm in thickness.
3. Salt concentration: It is important to accurately match the salt concentration of the ladder mixture to that of your samples in order to obtain the best size determinations. One useful technique for very precise sizing of sample fragments, which eliminates concerns over matching salt concentrations, is to co-electrophorese the ladder and the sample in the same well.

Catalog	Description	Pack Size
19-115	200 Lanes	1 ml



*Formulated for consistent and reliable service, gel after gel, and great pricing too!*

### Specifications

Agarose from Galileo Bioscience™ is available in three formulations that cover most laboratory separation procedures. Has been formulated for excellent performance and reliability. All Agaroses is certified DNase and RNase free, and is tested and compatible for use in all Molecular Biology applications.

The Wide Range Standard (Cat# REA-21000) agarose is ideal for most electrophoresis applications due to its ability to form a strong gel for a very wide range of molecular sizes. For resolution of very small fragments or fragments that are very close in size, choose our High Resolution agarose (Cat# REA-31000). Finally, if you need to recover your sample without damaging it, our premium Low-melt agarose (Cat# REA-41000) can also be used over a wide range of molecular sizes.

### Features:

- Tested to be compatible with downstream Molecular Biology applications
- Certified free of DNase, RNase, pyrogens, and contaminating nucleic acids
- Formulated to cover all of your electrophoresis needs with only 3 types of agarose



TYPE	MAIN APPLICATION	COMPARE	RANGE	RESOLVE %	RESOLVE bp
<b>REA-21000</b>	General Use	SeaKem LE	200 bp - 10 Kb	10%	20-1000 bp
<b>REA-31000</b>	Small fragment resolution	NuSieve 3:1	10-1000 bp	1%	2-20 bp
<b>REA-41000</b>	DNA recovery & in-gel reactions	SeaPlaqueGTG	200 bp - 10 Kb	10%	20-1000 bp

Product:	Applications:
<b>REA-21100</b> Standard DNA applications	Most routine analysis, Galileo has a very fine grain product that melts fast and covers a wide range of sizes for the price.
<b>REA-21100</b> High resolution	Very high quality resolving power for analyzing fragments very close in size. PCR analysis, Oligos, etc.
<b>REA-21500</b> Recovery low/melt	Low melting agarose with a relatively wide range. Use for DNA & RNA recovery, cloning, etc.

Ordering Information:			
Catalog #	Before	Description:	Pack Size
<b>REA-21025</b>	5410.25	Agarose: high melt/medium resolution for all of your standard DNA applications	25 g
<b>REA-21100</b>	5410.100	Agarose: high melt/medium resolution for all of your standard DNA applications	100 g
<b>REA-21500</b>	5410.500	Agarose: high melt/medium resolution for all of your standard DNA applications	500 g
<b>REA-31025</b>	5412.25	Agarose: high melt/high resolution for resolution of small fragments	25 g
<b>REA-31100</b>	5412.100	Agarose: high melt/high resolution for resolution of small fragments	100 g
<b>REA-41025</b>	5413.25	Agarose: low melt/medium resolution for all DNA recovery applications	25 g
<b>REA-41100</b>	5413.100	Agarose: low melt/medium resolution for all DNA recovery applications	100 g



## Agarose LE AZURA

Azura Agarose LE is a highly purified agarose, suitable for a variety of molecular biology applications.

Refined using an advanced process that excludes the use of organic solvents, Agarose LE yields a cleaner end-product with a significantly reduced environmental impact. Agarose LE can be used for analyses of proteins and nucleic acids of various sizes (150 bp to 6 kb). The low EEO ( $\leq 0.13$ -m) promotes increased electrophoretic mobility, yielding improved resolution and shorter run times. This also allows macromolecules and larger particles (subcellular fragments, viruses, etc.) to migrate more freely through the gel matrix. The consistently low EEO also provides a reduction in band distortion (caused by counter-flow) that can result from the presence of excessive sulfate-rich negative ions. It is easily soluble, free of nucleases, and easy to use. Azura Agarose LE is highly transparent and exhibits exceptionally low absorption of chemical staining agents.



### Applications

- Nucleic acid electrophoresis (analytical and preparative)
- Protein electrophoresis (including radial immunodiffusion)
- Blotting protocols

### Exceptional Performance and Convenience

Azura Agarose LE Exhibits exceptional thermal stability and mechanical resistance, ensuring safe, easy handling, regardless of whether a denaturing agent has been added. The low EEO ( $\leq 0.13$ -m) promotes increased electrophoretic mobility, yielding improved resolution and shorter run times.

### Ultra Pure

- RNase, DNase and Protease free
- Highly transparent; Ideal for molecular biology applications

### Technical Data

Gel strength	$8 \geq 1200\text{g/cm}^2$
Gel temperature	$36\text{ }^\circ\text{C} \pm 1.5\text{ }^\circ\text{C}$ (1.5%)
Melt temperature	$88\text{ }^\circ\text{C} \pm 1.5\text{ }^\circ\text{C}$ (1.5%)
EEO (-mr)	0.13
Moisture content	$\leq 7\%$
Sulfate	$\leq 0.2\%$
Storage conditions	Room temperature

### Ordering Information:

Catalog	Description:	Pack Size
A1700Z	Agarose LE	25 g
A1701Z	Agarose LE	100 g
AZ1705Z	Agarose LE	500 g
A1705Z-2	Agarose LE	2x500 g

## 6X Gel Loading Dye, APEX 19-123 Packaging Size: 3 x 1.25ml

**Concentration:** 15% w/v Ficoll 400, 0.06% w/v Bromophenol blue, 0.06% w/v Xylene cyanol FF, 30mM EDTA.

**Shipping:** Apex custom DNA ladders and Loading dye are shipped at ambient temperature.

**Storage:** Apex Loading Dye should be stored at 4°C.

**Stability:** Apex custom DNA ladders and loading dye may be kept safely at room temp. for at least 3 months. Ladders are guaranteed for 12 months from date of shipment when stored at 4°C.

**General Description** Apex 6X Loading Dye is a Type II loading buffer (modified). Used with Apex brand DNA molecular weight markers and Apex DNA ladders.

**Suggestion for use:** The 6X gel loading buffer produces a final 5mM EDTA, and can be substituted for the 20mM EDTA used to stop restriction digests, PCR, and other reactions before electrophoresis. For example, prepare a reaction sample for electrophoresis by adding 1.0µl 6X loading buffer to up to 5µl sample reaction (add distilled water to 6µl if your sample is <5µl..

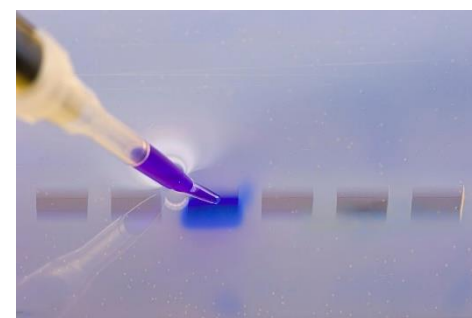


Prometheus™ ready-to-use Laemmli loading buffers are pre-mixed and contain Bromophenol blue to enable visualization of the dye front and monitoring of the progress of electrophoresis. Simply add an equal volume to your protein sample and obtain reproducible results with standardized buffers. Choose from reducing or non-reducing buffers, each supplied as a 2X concentrate.

- Pre-mixed, standard Laemmli loading buffers for protein electrophoresis
- Choose from reducing or non-reducing loading buffers
- Pre-mixed - just add an equal volume to your protein sample
- Obtain reproducible results with standardized buffers

### Ordering Information:

Catalog	Description:	Pack Size
20-309	Protein Loading Buffer (2X) Non-reducing Ready to use	5 x 1 ml
20-310	Protein Loading Buffer (2X) Reducing Ready to use	5 x 1 ml





## Premixed Liquid Buffers

Manufactured from the same high quality components APEX™ brand premixed liquid buffers combine high quality with the added convenience of liquid concentrates. Simply dilute 1x with high quality water, mix well and use!

## Features:

- Certified DNase, RNase, and pyrogen free
- Fast and easy to dilute to working concentration



## Ordering Information

Before	Catalog #	Description	Size
5101	REA-1002	<b>TAE Buffer 10x in liquid concentrate format.</b> One 10X bottle makes 10 liters of 1X. 1X formulation: 40mM Tris, 40mM acetate, 1 mM EDTA, pH 8.2 - 8.4	1 L
-----	20-195	<b>TAE 25X Liquid Concentrate, Ultra Pure Grade Solution, Apex Bio Research Products</b> <ul style="list-style-type: none"> <li>• Ideal for DNA Recovery &amp; In-gel Manipulations</li> <li>• Low Ionic Strength</li> <li>• Better Resolution of Large DNA Fragments: &gt;12 Kb DNA</li> <li>• Convenient Packaging Options Minimize Weighing &amp; Mixing</li> <li>• More compatible with in-gel manipulations and band recovery procedures than TBE</li> </ul> <p>TAE is an extensively used buffer for agarose gel electrophoresis applications requiring high resolution and separation of high molecular weight, double-stranded DNA. TAE Buffer is more compatible with in-gel manipulations and band recovery procedures than TBE Buffer. A single strength (1X) solution contains 0.04 M Tris-Acetate and 0.001 M EDTA with a final pH of 8.0.</p>	1.6 L
-----	20-193 20-194	<b>TAE 50X Liquid Concentrate, Ultra Pure Grade Solution, Apex Bio Research Products</b> <ul style="list-style-type: none"> <li>• Ideal for DNA Recovery &amp; In-gel Manipulations</li> <li>• Low Ionic Strength</li> <li>• Better Resolution of Large DNA Fragments: &gt;12 Kb DNA</li> <li>• Convenient Packaging Options Minimize Weighing &amp; Mixing</li> </ul> <p>More compatible with in-gel manipulations and band recovery procedures than TBE</p> <p>TAE is an extensively used buffer for agarose gel electrophoresis applications requiring high resolution and separation of high molecular weight, double-stranded DNA. TAE Buffer is more compatible with in-gel manipulations and band recovery procedures than TBE Buffer. A single strength (1X) solution contains 0.04 M Tris-Acetate and 0.001 M EDTA with a final pH of 8.0.</p>	1.6 L 4 L
5111	20-196	<b>TBE 10X Liquid Solution, Ultra Pure Grade Solution, APEX</b> <ul style="list-style-type: none"> <li>• High Buffering Capacity</li> <li>• High Ionic Strength</li> <li>• Permits Extended Electrophoresis Runs with no Buffer Recirculation</li> <li>• Storage Condition: ROOM TEMPERATURE</li> </ul> <p>TBE is optimized for DNA electrophoresis techniques using both acrylamide and agarose. A single strength (1X) Solution contains 0.089 M Tris Base, 0.089 M Borate and 0.002 M EDTA with a final pH of 8.3.</p>	4 liters
5111	REA-1004	<b>TBE buffer 10X liquid.</b> One 10X bottle makes 10 liters of 1X. 1X formulation: 89mM Tris, 89mM borate, 1mM EDTA, pH 8.2 - 8.4	
5181	20-246	<b>Tris-Glycine 10X liquid concentrate APEX</b> A 1X working solution contains 0.025M Tris base, 0.192 M Glycine. 1X buffer is used as transfer buffer for Western Blotting procedures. SDS can be included to a final concentration of 0.1% w/v to increase transfer efficiency from polyacrylamide gels that do not include SDS. Storage Condition: COLD	4 liters





Ordering Information

Before	Catalog #	Description	Size
-----	<b>18-238</b> <b>18-238B</b>	<b>Tris-Glycine, 10X, pH 8.3, APEX</b> 1X: 0.025 M Tris, 0.192 M Glycine, pH 8.3 Molecular/Proteomic Grade: Purity > 99% Manufactured using ultra pure 4 fold purified water Free of RNase, DNase, endonucleases & endotoxins Free of proteins and proteases Prepared & packaged under sterile, automated conditions in an ISO certified facility	500 ml 1000 ml
5151	<b>20-247</b>	<b>TG-SDS 10X Liquid Solution, Ultra Pure Grade, APEX BioResearch Products</b> Liquid concentrate used for protein electrophoresis to maintain pH and temperature of the environment as well as provide ions that carry electrical cu Convenient concentration for common protein gel electrophoresis buffers Excellent quality, consistency and resolution	4 liters
-----	<b>18-237B</b>	<b>TG-SDS, 10X, pH 8.3, Apex BioResearch Products</b> 1X: 0.025 M Tris, 0.192 M Glycine, 0.10% SDS, pH 8.3 Molecular/Proteomic Grade: Purity > 99% Manufactured using ultra pure 4 fold purified water Free of RNase, DNase, endonucleases & endotoxins Free of proteins and proteases Prepared & packaged under sterile, automated conditions in an ISO certified facility	1000 ml

## Premixed Dry Pack Buffers

APEX™ brand premixed dry pack buffer pouches feature maximum convenience, easy handling, and long term stability. Each pouch allows you to quickly produce 10 liters of buffer without the hassle of locating, weighing and formulating your buffers manually. Just add water!

### Features:

- Certified DNase, RNase, and pyrogen free

### Related Products:

Horizontal gel boxes. See our Galileo™ brand electrophoresis section, *pages 11-18*



#### 1x Buffer formulations:

<b>20-130</b>	TAE Buffer 40mM Tris, 40mM acetate, 1mM EDTA
<b>20-131</b>	TBE Buffer 89mM Tris, 89mM Borate, 1mM EDTA
<b>20-134</b>	PBS Buffer 137mM sodium chloride, 2.7mM KCl, 10mM phosphate buffer
<b>20-132</b>	TG-SDS Buffer 25mM Tris, 192mM glycine, 0.1% SDS
<b>20-133</b>	TG Buffer 25mM Tris, 192mM glycine

## Ordering Information

Before	Catalog #	Description	Size
----- -	<b>20-134</b>	<b>PBS Buffer, 10X Dry Pack, APEX BioResearch Products</b> One dry pack makes 10 liters of 1X solution Ultra Pure Grade 1X formulation: 137mM NaCl, 2.7 mM KCl, 10mM phosphate buffer, pH 7.3-7.5 Ca and Mg Free	1 Pack
	<b>18-116</b> <b>18-117</b>	<b>PBS, 1X Dry Powder, pH 7.2, Apex BioResearch Products</b> • <b>250g Makes 25.5L of 1X</b> • <b>500 g Makes 51L of 1X</b> 1X: 0.14 M NaCl, 0.0027 M KCl, 0.010 M NaPO <sub>4</sub> , pH 7.2 Molecular/Proteomic Grade: Purity > 99% Free of RNase, DNase, endonucleases & endotoxins Free of proteins and proteases Prepared & packaged under sterile, automated conditions in an ISO certified facility Without Calcium and Magnesium	250 g 500 g
5101	<b>20-130</b>	<b>TAE Buffer, 25X Dry Pack, Apex BioResearch Products</b> One dry pack makes 25 liters of 1X solution Ultra Pure Grade Ideal for DNA Recovery & In-gel Manipulations Low Ionic Strength Better Resolution of Large DNA Fragments: >12 Kb DNA	1 pack
----- -	<b>18-134</b>	<b>TAE, 1X, pH 8.3, Makes 65.3L of 1X, Apex BioResearch Products</b> 1X: 0.04 M Tris-Acetate, 0.001 M EDTA, pH 8.3 Molecular/Proteomic Grade: Purity > 99% Free of RNase, DNase, endonucleases & endotoxins Free of proteins and proteases Prepared & packaged under sterile, automated conditions in an ISO certified facility	500 g
	<b>20-131</b>	<b>TBE Buffer, 10X Dry Pack, Apex BioResearch Products</b> One dry pack makes 10 liters of 1X solution Ultra Pure Grade High Buffering Capacity High Ionic Strength Permits Extended Electrophoresis Runs with no Buffer Recirculation	1 pack
	<b>18-134</b> <b>18-136</b>	<b>TBE, 1X, pH 8.3, Apex BioResearch Products 18-135</b> • <b>250g Makes 14.7L of 1X</b> • <b>500 g Makes 29.4L of 1X</b> 1X: 0.089 M Tris-Borate, 0.002 M EDTA, pH 8.3 Molecular/Proteomic Grade: Purity > 99% Free of RNase, DNase, endonucleases & endotoxins Free of proteins and proteases Prepared & packaged under sterile, automated conditions in an ISO certified facility	250 g 500 g
5111	<b>20-133</b>	<b>TG Buffer, 10X Dry Pack, 1 Pack/Unit Apex BioResearch Products</b> One dry pack makes 10 liters of 1X solution. 1X formulation: 25mM Tris, 192 mM glycine, pH 8.3 - 8.7 Ultra Pure Grade	1 pack
5117	<b>20-132</b>	<b>TG-SDS Buffer, 10X Dry Pack, Apex BioResearch Products</b> One dry pack makes 10 liters of 1X solution. 1X formulation: 25 mM Tris, 192 mM glycine, 0.1% SDS, pH 8.3 - 8.7 Ultra Pure Grade	1 pack



## Ordering Information

## Buffers Solutions

## Ultra Pure - Molecular/Proteomic Grade Chemicals - Purity &gt; 99%

- Free of RNase, DNase, endonucleases, endotoxins, proteins & proteases



Catalog #	Description	Size
<b>18-155</b> <b>18-156</b>	<b>EDTA Buffer, 1X, pH 8.0, Apex BioResearch Products</b> 1X: 0.5M Ethylenediaminetetraacetic acid sodium salt, pH 8.0 Molecular/Proteomic Grade: Purity > 99% Manufactured using ultra pure 4 fold purified water Free of RNase, DNase, endonucleases & endotoxins Free of proteins and proteases Prepared & packaged under sterile, automated conditions in an ISO certified facility	500 ml 1000 ml
<b>18-244</b>	<b>PBS, 10X, pH 7.4, APEX BioResearch Products</b> 1X: 0.14 M NaCl, 0.0027 M KCl, 0.010 M NaPO <sub>4</sub> , pH 7.4	500 ml
<b>18-173</b> <b>18-174</b>	<b>PBST (PBS-Tween 20), 10X, pH 7.4 APEX BioResearch Products</b> 1X: 0.14 M NaCl, 0.0027 M KCl, 0.010 M NaPO <sub>4</sub> , 0.05% Tween 20, pH 7.4 Molecular/Proteomic Grade: Purity > 99% Manufactured using ultra pure 4 fold purified water Free of RNase, DNase, endonucleases & endotoxins Free of proteins and proteases Prepared & packaged under sterile, automated conditions in an ISO certified facility	500 ml 1000 ml
<b>18-234</b> <b>18-234B</b>	<b>SDS, 20%, Liquid Solution, Apex BioResearch Products</b> 20%, Sodium Dodecyl Sulfate Molecular/Proteomic Grade: Purity > 99% Manufactured using ultra pure 4 fold purified water Free of RNase, DNase, endonucleases & endotoxins Free of proteins and proteases Prepared & packaged under sterile, automated conditions in an ISO certified facility	500 ml 1000 ml
<b>18-236</b> <b>18-236B</b>	<b>TBS, 20X, pH 7.4, Apex BioResearch Products</b> 1X: 0.05M Tris, 0.15M NaCl, pH 7.4 Molecular/Proteomic Grade: Purity > 99% Manufactured using ultra pure 4 fold purified water Free of RNase, DNase, endonucleases & endotoxins Free of proteins and proteases Prepared & packaged under sterile, automated conditions in an ISO certified facility	500 ml 1000 ml
<b>18-235</b> <b>18-235B</b>	<b>TBST (TBS-Tween 20), 10X, pH 7.6, Apex BioResearch Products</b> 1X: 0.050 M Tris, 0.138 M NaCl, 0.0027 M KCl, 0.1% Tween-20, pH 7.6 Molecular/Proteomic Grade: Purity > 99% Manufactured using ultra pure 4 fold purified water Free of RNase, DNase, endonucleases & endotoxins Free of proteins and proteases Prepared & packaged under sterile, automated conditions in an ISO certified facility	500 ml 1000 ml

**Ethidium Bromide dropper bottle –**

Ethidium dropper bottles from High Desert BioScience offer a safe and efficient method for the addition of ethidium bromide to solutions and gels, for nucleic acid staining. No more handling of potentially hazardous ethidium powder or concentrated solutions. The dropper bottle ethidium solution is pre-calibrated for -

quick addition and safe handling. Simply add one drop per 50ml solution for a 0.5 ug/ml final concentration. In addition, our dropper bottles are virtually spill-proof and feature a secondary containment vial for added safety and protection from ethidium damaging UV radiation.

**Technical Specifications:**

Ethidium Bromide Facts	
<b>Chemical Name:</b>	2, 7-Diamino-10-ethyl-9-phenyl-phenanthridinium bromide
<b>Chemical Formula:</b>	C <sub>21</sub> H <sub>2</sub> ON <sub>3</sub> Br
<b>Molecular Weight:</b>	394.3
<b>Safety Issues:</b>	Ethidium bromide is a known mutagen and is a moderately toxic. Caution should be exercised when handling this compound, especially in the powdered form.



CLP offers an easy and efficient method to remove Ethidium Bromide (also Coomassie Blue and other dyes) from solutions and gels for safe and easy disposal. Simply drop a destaining bag into your solution and let stand overnight (stirring speeds up the process). Typically, each bag will remove 99% of the dye from a one liter, 0.5 µg/ml solution after overnight incubation. Bags have a maximum capacity of 5mg.

**Ordering Information****Ordering Information:**

Catalog #	Before	Description:	Presentation
REA-1014	5450	Ethidium Bromide dropper bottle - convenient way to dispense this dangerous reagent. Stock solution of 0.625 mg/ml.	10 ml @ 0.625 mg/ml
REA-1015	5459.25	The proprietary absorbent in these destaining pouches allows for easy removal and safe discarding of EtBr and various other dyes in solutions/gels.	Pack of 25

**Related Products****Agarose**





see page

**Glove up with new Premium Titan™ brand Super Blue Nitrile**

Nitrile is recommended for Ethidium Bromide (see page ).



## Ordering Information

Catalog #	Description	Size
 <b>IB70001</b>	<b>ACRYLAMIDE 30% SOLUTION 19:1 INSTA-PAGE, IBI Scientific</b> CAS# 110-26-9 / 79-06-1 30% Acrylamide/ bis-acrylamide solutions: These product are manufactured here at IBI Scientific using Type 1 reagent grade water produced from our state-of-the-art water purification system. Quality Control testing is also completed here at IBI Scientific as these solutions are certified as nuclease and protease free. Premixed acrylamide/bis-acrylamide solution for pouring polyacrylamide gels used in sequencing and protein electrophoresis IBI Scientific 30% Acrylamide/ bis-acrylamide solutions produce clear gels that result in clear and concise results Manufactured regularly to maintain freshness and shelf life Ready-to-use solution for preparing polyacrylamide gels for sequencing and protein electrophoresis Ideal for use as a 4% stacking gel or a 10% resolving gel in SDS PAGE applications These product are subject to hazardous shipping fees	1 L
 <b>IB70001</b>	<b>ACRYLAMIDE 30% SOLUTION 29:1 INSTA-PAGE, IBI Scientific</b> CAS# 110-26-9 / 79-06-1 30% Acrylamide/ bis-acrylamide solutions: These product are manufactured here at IBI Scientific using Type 1 reagent grade water produced from our state-of-the-art water purification system. Quality Control testing is also completed here at IBI Scientific as these solutions are certified as nuclease and protease free. Premixed acrylamide/bis-acrylamide solution for pouring polyacrylamide gels used in sequencing and protein electrophoresis IBI Scientific 30% Acrylamide/ bis-acrylamide solutions produce clear gels that result in clear and concise results Manufactured regularly to maintain freshness and shelf life Ready-to-use solution for preparing polyacrylamide gels for sequencing and protein electrophoresis Ideal for use as a 4% stacking gel or a 10% resolving gel in SDS PAGE applications These product are subject to hazardous shipping fees	1 L
 <b>IB70005</b>	<b>INSTA-PAGE ACRYLAMIDE 30% SOLUTION 37.5:1 INSTA-PAGE, IBI Scientific</b> 30% Acrylamide/ bis-acrylamide solutions: These product are manufactured here at IBI Scientific using Type 1 reagent grade water produced from our state-of-the-art water purification system. Quality Control testing is also completed here at IBI Scientific as these solutions are certified as nuclease and protease free. Premixed acrylamide/bis-acrylamide solution for pouring polyacrylamide gels used in sequencing and protein electrophoresis IBI Scientific 30% Acrylamide/ bis-acrylamide solutions produce clear gels that result in clear and concise results Manufactured regularly to maintain freshness and shelf life Ready-to-use solution for preparing polyacrylamide gels for sequencing and protein electrophoresis Ideal for use as a 4% stacking gel or a 10% resolving gel in SDS PAGE applications These product are subject to hazardous shipping fees	1 L
<b>IB70015</b>	<b>ACRYLAMIDE 40% SOLUTION 19:1 INSTA-PAGE, IBI SCIENTIFIC</b> CAS# 110-26-9 / 79-06-1 40% Acrylamide/ bis-acrylamide solutions: These product are manufactured here at IBI Scientific using Type 1 reagent grade water produced from our state-of-the-art water purification system. Quality Control testing is also completed here at IBI Scientific as these solutions are certified as nuclease and protease free. Premixed acrylamide/bis-acrylamide solution for pouring polyacrylamide gels used in sequencing and protein electrophoresis Manufactured regularly to maintain freshness and shelf life Ready-to-use solution for preparing polyacrylamide gels for sequencing and protein electrophoresis Ideal for use as a 4% stacking gel or a 10% resolving gel in SDS PAGE applications These product are subject to hazardous shipping fees	1 L
 <b>18-197</b>	<b>Acrylamide/Bis Acrylamide, 40% (29:1), Sterile solution, Apex Bioresearch Products</b> Molecular/Proteomic Grade: Purity > 99%	500 ml





Ordering Information

Catalog #	Description	Size
 <b>18-198</b>	<b>Acrylamide/Bis Acrylamide, 40% (37.5:1), Sterile solution, Apex Bio Research Products 18-198</b> Molecular/Proteomic Grade: Purity > 99%	500 ml
 <b>IB70080</b>	<b>AMMONIUM PERSULFATE, IBI SCIENTIFIC</b> CAS#: 7727-54-0 An oxidizer used to make polyacrylamide gels for protein electrophoresis and sequencing Ammonium persulfate is a powerful oxidizer that promotes polymerization of acrylamide gels by scavenging dissolved oxygen in the polyacrylamide gel solution. This accelerates the acrylamide/bisacrylamide reaction.	100 g
 <b>18-199</b>	<b>Bicine, Molecular/Proteomic Grade, Apex Bio Research Products</b> <ul style="list-style-type: none"><li>2-Bis(2-hydroxymethyl)amino)acetic acid</li><li>Molecular/Proteomic Grade: Purity &gt; 99%</li></ul>	500 g
 <b>18-200</b>	<b>Boric Acid, Molecular/Proteomic Grade, Apex Bio Research Products</b> <ul style="list-style-type: none"><li>Purity &gt; 99%</li></ul>	500 G
 <b>IB70096</b>	<b>BORIC ACID, IBI SCIENTIFIC</b> CAS# 10043-35-3 For use in Tris-Borate electrophoresis buffer systems Boric acid is an ingredient in the Tris-Borate buffer systems used in high voltage electrophoresis. Boric acid powder can be used to make a concentrated stock solution of Tris-Boric Acid-EDTA (TBE) buffer.	2.5 k
 <b>IB74040</b>	<b>BROMOPHENOL BLUE, IBI SCIENTIFIC</b> CAS# 115-39-9 Used as a tracking dye to follow progress of electrophoresis separation Co-migrates with DNA molecules to around 0.5Kb Bromophenol Blue is used as a tracking dye to monitor the progress of electrophoresis separations. Bromophenol Blue usually co-migrates with DNA molecules to around 0.5 Kb. Therefore, bromophenol blue provides an index of the mobility of the fastest fragments and is valuable in determining the length of the gel over which the separation of DNA has occurred.	25 g
 <b>IB21040</b>	<b>DITHIOTHREITOL-CLELAND'S REAGENT (DTT CHEMICAL), IBI SCIENTIFIC</b> CAS# 3483-12-3 Used in enzyme preparation to stabilize the enzyme DTT is used in enzyme preparations to prevent formation of disulfides from sulfhydryl groups. This stabilizes the enzyme. DTT should be warmed to room temperature before opening. DTT solutions should be made fresh prior to use. Do not autoclave DTT or solutions containing DTT.	5 g
 <b>18-203 18-204</b>	<b>DTT, Molecular/Proteomic Grade, Apex Bio Research Products</b> <ul style="list-style-type: none"><li>Dithiothreitol, Cleland's Reagent</li><li>Molecular/Proteomic Grade: Purity &gt; 99%</li><li>CAS#: 3483-12-3</li></ul>	5 g 25 g
 <b>IB15727</b>	<b>ETHANOL 70% (ANHYDROUS ALCOHOL) IBI SCIENTIFIC</b> <ul style="list-style-type: none"><li>Used as an excellent cleaning reagent</li></ul> 70% Ethanol is an effective cleaning agent that kills microbes, denatures proteins, and dissolves lipids. Ethanol is also known as ethyl alcohol, alcohol anhydrous, denatured alcohol. <b>SPECIFICATIONS:</b> <b>Specific Gravity:</b> 0.8800 Max.   <b>Ethanol:</b> 95%    <b>Methanol:</b> 5%   <b>Water Content:</b> 28 – 32% <b>Molecular Biology Specifications:</b> <b>DNase Assay:</b> None Detected   <b>RNase Assay:</b> None Detected	10 L



## Ordering Information

Catalog #	Description	Size
 <b>IB15720</b> <b>IB15721</b> <b>IB15724</b>	<b>ETHANOL (ANHYDROUS ALCOHOL), IBI SCIENTIFIC</b> CAS#: 64-17-5 <ul style="list-style-type: none"> <li>• 200 Proof Ethanol denatured with 5% methanol</li> <li>• Used for precipitating nucleic acids</li> </ul> Ethanol is widely used for precipitating nucleic acids. The nucleic precipitate, which is formed in the presence of moderate concentrations of monovalent cations, is recovered by centrifugation and redissolved in an appropriate buffer at the desired concentration. 200 Proof Ethanol is denatured with methyl alcohol. Ethanol is also known as ethyl alcohol, alcohol anhydrous, denatured alcohol.	500 ml 1 L 4 L
 <b>IB70180</b> <b>IB70182</b>	<b>ETHYLENEDIAMINE TETRAACETIC ACID (EDTA), DISODIUM SALT</b> CAS# 6381-92-6 For use in biological and electrophoresis buffer systems A chelator of divalent cations For Research Use ONLY – NOT for Human Consumption EDTA is commonly used in biological and electrophoresis buffer systems as a chelator of divalent cations. Some proteolytic enzymes and nucleases require divalent cations for activity. The addition of EDTA reduces the chance of sample degradation. EDTA Disodium salt can be used to make a concentrated stock of buffer solutions.	100 g 500 g
 <b>IB70180</b> <b>IB70184</b>	<b>ETHYLENEDIAMINE TETRAACETIC ACID (EDTA) SOLUTION</b> CAS# 6381-92-6 For use in biological and electrophoresis buffer systems Available in 100ml and 400ml sizes For Research Use Only. IBI 0.5MEDTA solution (pH 8.0) is ideal for biochemistry and molecular biology applications requiring a chelator of divalent metal ions. Ethylenediamine tetraacetic acid solution can be used to elucidate the role of antigen retrieval in immunostaining of ethanol fixed smears.	100 ml 4 x 100 ml
 <b>IB15760</b> <b>IB15762</b> Packaged in a poly bottle	<b>GLYCEROL MOLECULAR BIOLOGY GRADE, IBI SCIENTIFIC</b> CAS# 56-81-5 Used in the preparation of polyacrylamide gels for electrophoresis For sample preparation to increase sample density. Used in sample preparation to prevent freezing. IBI glycerol is ideal for both sample preparation and preparation of polyacrylamide gels for electrophoresis. A concentration measuring 5% - 10% glycerol increases the density of a sample so that the sample layers the bottom of the gel well. Glycerol is also used to aid in casting gradient gels and as a protein stabilizer and storage buffer component.	500 ml 1 lt
 <b>18-205</b>	<b>Glycerol, Molecular/Proteomic Grade, Apex Bioresearch Products</b> <ul style="list-style-type: none"> <li>• Molecular/Proteomic Grade: Purity &gt; 99%</li> </ul>	500 ml
 <b>IB70194</b> <b>IB70195</b>	<b>GLYCINE, IBI SCIENTIFIC</b> CAS# 56-40-6 <ul style="list-style-type: none"> <li>• For use in polyacrylamide buffer systems</li> </ul> Glycine is a neutral amino acid and is the primary component in polyacrylamide buffers. During the process of separation, the glycine forms an electrical front that pulls the macromolecules along. Glycine can be used to make a concentrated stock of buffer solutions.	2.5 k 5 k
 <b>IB05080</b>	<b>GUANIDINE HCL, IBI SCIENTIFIC</b> Model Number IB05080 CAS# 50-01-1 <ul style="list-style-type: none"> <li>• Ionic detergent that denatures most proteins and used to isolate RNA</li> </ul> Guanidine HCl is an ionic detergent that rapidly and effectively denatures most proteins. It is also used in the isolation of RNA.	500 g










Ordering Information

Catalog #	Description	Size
 <b>18-206</b>	<b>Guanidine Hydrochloride, Molecular/Proteomic Grade, Apex Bio Research Products</b> <ul style="list-style-type: none"><li>• Carbamimidoylazanium Hydrochloride</li><li>• Molecular/Proteomic Grade: Purity &gt; 99%</li></ul>	500 g
 <b>IB05100</b>	<b>GUANIDINE THIOCYANATE, IBI SCIENTIFIC</b> CAS#593-84-0 <ul style="list-style-type: none"><li>• Used in the isolation of RNA</li></ul> Guanidine thiocyanate is used in the isolation of RNA.	500 g
 <b>18-207</b>	<b>Guanidine Thiocyanate, Molecular/Proteomic Grade, Apex Bio Research Products</b> <ul style="list-style-type: none"><li>• Carbamimidoylazanium Thiocyanate</li><li>• Purity &gt; 99%</li></ul> Guanidine Thiocyanate (Guanidinium thiocyanate or guanidinium isothiocyanate), a powerful protein denaturant, is most often used to inactivate endogenous RNases in the isolation of RNA from various tissues and bacteria. When used with acid-equilibrated phenol or phenol:chloroform, a solution of Guanidine Thiocyanate and beta-mercaptoethanol are very effective in disrupting both cytoplasmic and nuclear membranes while maintaining the integrity of the RNA.	500 g
 <b>IB01130</b> <b>IB01131</b> <b>IB01132</b> <b>IB01133</b>	<b>HEPES, FREE ACID, IBI SCIENTIFIC</b> CAS# 7365-45-9 <ul style="list-style-type: none"><li>• For use in polyacrylamide electrophoresis buffer systems.</li><li>• Ideal cell culture buffer.</li><li>• Maintains physiological pH in cell culture applications.</li></ul> HEPES powder is a zwitterionic biological buffer ideally suited for cell culture due to its ability to maintain physiological pH despite changes in carbon dioxide concentration. This property distinguishes HEPES from bicarbonate buffers which are also used in cell culture applications. Another characteristic of HEPES is that its dissociation decreases as temperature decreases making it a more effective buffer agent for maintaining enzyme structure and function at low temperatures. Typical concentrations range from 10 to 25 mM. HEPES has a buffering range of pH 6.8 to 8.2. HEPES is also a component of Tris-HEPES which is a buffer commonly used in polyacrylamide gel electrophoresis of proteins. Offered in 50g, 250g, 500g and 1Kg sizes for your convenience.	50 g 250 g 500 g 1 k
 <b>18-209</b> <b>18-208</b> <b>18-208C</b>	<b>Imidazole, Molecular/Proteomic Grade, Apex Bio Research Products</b> <ul style="list-style-type: none"><li>• 1,3-diazole</li><li>• Molecular/Proteomic Grade: Purity &gt; 99%</li></ul>	100 g 500 g 2.5 k
 <b>20-109</b>	<b>IPTG, Biotechnology Grade, Apex Bio Research Products</b> <ul style="list-style-type: none"><li>• &gt;99% Purity</li><li>• (Isopropyl-β-D-Thiogalactopyranoside, Dioxane free)</li><li>• Store at 0-4° C; protect from light and humidity.</li><li>• C.A.S. R.N. [367-93-1]</li></ul> Is manufactured under the industry's most stringent quality control procedures to assure lot-to-lot consistency for reproducible results in your laboratory. Apex IPTG (Isopropyl-β-D-Thiogalactopyranoside, Dioxane free) is a β-Galactosidase inducer used also as an inducer for the activity of the E. coli lac operon by linking and inactivating the lac repressor gene, without being degraded by the enzyme like the natural substrate, lactose. Formula: C <sub>9</sub> H <sub>18</sub> O <sub>5</sub> , Molecular Weight: 238.3, Purity: >99% by HPLC, Solubility Clear and colorless solution (5% in H <sub>2</sub> O), Store at 0-4° C; protect from light and humidity.	5 g
<b>18-241</b> <b>18-242</b>	<b>IPTG 10g, Molecular/Proteomic Grade, Apex Bio Research Products</b> <ul style="list-style-type: none"><li>• Isopropyl-β-D-thiogalactopyranoside</li><li>• &gt;99% Purity</li><li>• CAS#: 367-93-1</li><li>• Recommended storage temperature 2 - 8 °C</li></ul>	10 g 25 g



## Ordering Information

Catalog #	Description	Size
 <b>IB02100</b> <b>IB02105</b> <b>IB02125</b>	<b>IPTG (ISOPROPYL B-D-THIOGALATOPYRANOSIDE)</b> CAS# 367-93-1 Used to induce $\beta$ -galactosidase activity in <i>E. coli</i> IPTG is an inducer of $\beta$ -galactosidase activity in <i>E. coli</i> . It is commonly used in conjunction with X-GAL to detect lac gene expression in cloning applications to allow detection of recombinant molecules.	1 g 5 g 25 g
 <b>IB02150</b>	<b>IPTG / X-GAL SPRAY SOLUTION</b> <ul style="list-style-type: none"> <li>Ready to use IPTG/X-gal solution for selection of cloning construct in LacZ expression in the presence of lacI repressor</li> <li>Concentration: 8mg/ml</li> <li>Proprietary formulation enhances blue color</li> </ul> IPTG/X-GAL Solution is a ready-to-use product packaged in an easy-to-use spray bottle. The solution is used in selection of cloning construct in LacZ expression in the presence of lacI repressor. The concentration of this solution is 8 mg/ml of IPTG and X-GAL. Each pump of the easy to use spray bottle produces approximately 0.20 ml of solution. This volume of solution per actuation should be used to determine your required volume per plate. Spread solution and pause to ensure absorption by waiting approximately 5 to 10 minutes. IBI IPTG/X-gal solution is the only one on the market that can be kept at room temp for extended periods of time without harming the performance of the solution. Storage at 4 deg C is recommended for long term. Made without DMSO. This proprietary formulation enhances the blue color thus making colony picking much easier! Better contrast and less false positives.	20 ml
 <b>IB15730</b> <b>IB15735</b>	<b>ISOPROPANOL, IBI SCIENTIFIC</b> CAS#: 67-63-0 <ul style="list-style-type: none"> <li>Used for precipitation of nucleic acids</li> </ul> IBI's Isopropanol (isopropyl alcohol) is biotechnology grade for use in precipitating nucleic acids. The nucleic acid precipitate which is formed in the presence of moderate concentrations of monovalent cations, is recovered by centrifugation and redissolved in an appropriate buffer at the desired concentrations. Isopropanol is also known as isopropyl alcohol, IPA, and iso-propanol.	500 ml 1 L
 <b>IB74050</b>	<b>METHYLENE BLUE, IBI SCIENTIFIC</b> CAS# 7220-79-3 Used to stain agarose gels when recovery of DNA is required Cannot be shipped to a personal residence. Methylene Blue is a recommended stain for agarose gels when recovery of DNA is required. The benefit of using methylene blue (rather than ethidium bromide) is the ability to use a white light box for visualization and photography in place of a UV light box. Using a white light box eliminates mutations that may affect the integrity of the isolated DNA. To stain DNA, stain a 1% gel for 15 min with 0.02% methylene blue solution in distilled water. Destain with distilled water for 15 minutes. To stain RNA bonded to nylon or nitrocellulose membranes, soak the dried membrane in 5% acetic acid at room temperature for 15 minutes. Then, place the filter in 0.5 M sodium acetate (pH 5.2) and 0.04% methylene blue for 5– 10 minutes at room temperature. To destain, rinse the filter in water for 5 – 10 minutes.	25 g
 <b>IB70170</b>	<b>MOPS POWDER, IBI SCIENTIFIC</b> CAS# 1132-61-2 Buffer powder containing 4-Morpholinepropanesulfonic acid MOPS is a zwitterionic buffer ideally suited for RNA electrophoresis in agarose gels. The 6.5 – 7.9 buffering range works exceptionally well in formaldehyde gels at a concentration of 20 mM. DEPC can be added to ensure the buffer is nuclease contamination-free.	100 g






BIOREAGENTS

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BIOREAGENTS



Ordering Information






Catalog #	Description	Size
 <b>IB01100</b>	<b>PONCEAU S, IBI SCIENTIFIC</b> CAS# 6226-79-5 Used to visualize proteins on a nitrocellulose or PVDF membrane Ponceau S protein stain is used to visualize proteins on a nitrocellulose or PVDF membrane. To create a Ponceau S solution, dissolve 0.5g of Ponceau S in 1ml of glacial acetic acid and bring to 100ml with ddi water. To stain with Ponceau S, remove blot and rinse with ddi water. Then, stain with Ponceau S solution for 1 – 2 minutes. Rinse for 3 – 5 minutes with ddi water. Red bands should appear against the white background. To reversal stain with Ponceau S solution, place the nitrocellulose membrane in Ponceau S solution for 5 minutes at room temperature. Destain in ddi water for 2 minutes and mark the molecular weight standard with indelible ink. To complete the destain, soak in water for 10 minutes. Alternatively, use 0.1M NaOH solution for 5 minutes if proteins of interest are not basic.	50 g
 <b>IB05400</b> <b>IB05402</b>	<b>PROTEINASE K POWDER, IBI SCIENTIFIC</b> IBI Scientific Recombinant Proteinase K Powder, originally isolated from the mold <i>Engyodontium album</i> , is a serine protease with broad substrate specificity and relatively high proteolytic activity. It preferentially cleaves ester and peptide bonds adjacent to the C-termini of hydrophobic, aliphatic, or aromatic amino acids. IBI Scientific recombinant Proteinase K Powder is highly pure, determined by SDS-PAGE to be 95%. High purity, sterility, no bio-burden and no presence of DNase, RNase, DNA, and RNA contaminants. By using absorbance A275 as the vertical axis and different concentrations of a tyrosine as the horizontal axis the enzymatic activity was calculated to >30U/mg. IBI Scientific recombinant Proteinase K Powder is expressed in <i>pichia pastoris</i> , purified and lyophilized.	100 mg 200 mg
 <b>42-700</b>	<b>Proteinase K 100mg, Specific Activity &gt; 30units/mg, Apex BioResearch Products</b> <ul style="list-style-type: none"><li>Useful for the inactivation of nucleases during the isolation of DNA and RNA</li><li>Non-specific serine protease that exhibits high activity in the presence of SDS, EDTA, and urea as well as a wide pH range</li><li>Lyophilized powder. Specific Activity &gt;30units/mg protein</li><li>Molecular/Proteomic Grade: Purity &gt; 99%</li></ul> Proteinase K is a protease that cleaves at the carboxyl side of aliphatic, aromatic or hydrophobic residues and is commonly used to digest and inactivate DNase and RNase in nucleic acid purification. Proteinase K is a subtilisin-like endolytic protease that is isolated from the saprophytic fungus <i>Tritirachium album</i> . It has a high activity that is stable across a wide range of pH and temperature conditions and is suited to short digestion times. The activity of proteinase K is increased at elevated temperatures up to 65°C. Calcium is not essential to the function of proteinase K. Therefore, EDTA and other chelating agents do not interfere with the activity and may be used alongside proteinase K to inactivate calcium dependent nucleases in DNA and RNA preparation.	100 mg
 <b>IB05406</b>	<b>PROTEINASE K SOLUTION, IBI SCIENTIFIC</b> IBI Scientific Recombinant Proteinase K Solution contains Recombinant Proteinase K powder, originally isolated from the mold <i>Engyodontium album</i> , is a serine protease with broad substrate specificity and relatively high proteolytic activity. It preferentially cleaves ester and peptide bonds adjacent to the C-termini of hydrophobic, aliphatic, or aromatic amino acids. IBI Scientific recombinant Proteinase K Powder is highly pure, determined by SDS-PAGE to be 95%. High purity, sterility, no bio-burden and no presence of DNase, RNase, DNA, and RNA contaminants. By using absorbance A275 as the vertical axis and different concentrations of a tyrosine as the horizontal axis the enzymatic activity was calculated to >30U/mg. IBI Scientific recombinant Proteinase K Powder is expressed in <i>pichia pastoris</i> , purified and lyophilized.	5 ml
 <b>IB07062</b> <b>IB07063</b> <b>IB07064</b> <b>IB07065</b>	<b>SDS ULTRAPURE POWDER (SODIUM DODECYL SULFATE), IBI SCIENTIFIC</b> Model Number IB07064 CAS# 151-21-3 Ionic detergent used to denature proteins Available in multiple sizes 25 KG size must ship via truck on a pallet Bulk orders available Sodium Dodecyl Sulfate (SDS) is an ionic SDS detergent used to denature proteins in hybridization, nucleic acid purification, and electrophoresis buffer systems. SDS is also used to dissociate nucleic acid protein complexes in DNA extraction protocols, to disrupt cell membranes, and to prepare prehybridization and/or hybridization solutions. To make a 10% SDS solution, dissolve 100 g of SDS in 900 ml of ddi water. Heat to 68° C to assist dissolution. Adjust the pH to 7.2 by adding a few drops of HCl. Adjust the total volume to 1 L with ddi water, then dispense into aliquots.	500 g 1 k 5 k 25 g

BIOREAGENTS



Apex Bioresearch Products & IBI Scientific™  
brands Reagents

## Ordering Information

Catalog #	Description	Size
 <b>IB07070</b> <b>IB07071</b> <b>IB07072</b> <b>IB07073</b>	<b>SODIUM CHLORIDE, IBI SCIENTIFIC</b> For use in buffers and cell culture media Sodium chloride is an ionic compound with the molecular formula of NaCl. Sodium chloride is the salt found most in the extracellular fluid of many multicellular organisms. It is also commonly used as the main component in saline solution. This material is of non-animal and non-human origin.	500 g 1 k 2.5 k 5 k
 <b>18-214</b> <b>18-215</b> <b>18-216</b>	<b>Sodium Chloride, Molecular/Proteomic Grade, Apex Bioresearch Products</b> <ul style="list-style-type: none"> <li>Purity &gt; 99%</li> </ul>	1000 g 2500 g 5000 g
 <b>IB37160</b> <b>IB37165</b>	<b>SUCROSE, IBI SCIENTIFIC</b> CAS# 57-50-1 Used in rate-zonal centrifugation to separate molecules based on size and conformation Sucrose is used in rate-zonal centrifugation to separate molecules based on size and conformation.	1 k 5 k
 <b>18-217</b>	<b>TCEP-HCl, Molecular/Proteomic Grade, Apex Bioresearch Products</b> TCEP, (Tris [2-carboxyethyl] phosphine hydrochloride) An alternative for BME, odorless TCEP can be conveniently used for reductions in a healthier lab environment Compatible with all common biological buffers used for protein purification and conjugation Stable in both acidic and basic solutions (pH 1.5 - 9) Air stable, non-volatile and non-reactive Suitable for high throughput DNA sequencing applications Recommended storage temperature: 2 - 8 °C Sufficient for preparing nearly 0.7L of 50mM solution	10 g
 <b>18-243</b>	<b>TEMED, Molecular/Proteomic Grade, Apex Bioresearch Products</b> <ul style="list-style-type: none"> <li>Tetramethylethylenediamine</li> <li>Store at 4°C</li> <li>CAS#: 110-18-9</li> <li>%: &gt;99</li> </ul>	10 ml
 <b>IB02200</b>	<b>TETRACYCLINE HYDROCHLORIDE, IBI SCIENTIFIC</b> CAS#: 64-75-5 For use in cell culture media to inhibit gram-positive and gram-negative bacteria This product cannot be shipped to a private residence. Tetracycline Hydrochloride is an antibiotic that inhibits protein synthesis (elongation) by preventing the binding of amino-tRNA to ribosome. Tetracycline is for use in cell culture applications. The tetracycline powder is used to make a stock solution at 5mg/ml in water. The working concentration for stringent plasmids is 10µg/ml and 50µg/ml for relaxed plasmids. If dissolved in ethanol, the antibiotic solution need not be sterilized. Magnesium ions are antagonists of tetracycline. Use media without magnesium salts (e.g. LB medium) for the selection of bacteria resistant to tetracycline.	25 g
 <b>IB70142</b> <b>IB70144</b> <b>IB70145</b> <b>IB70147</b>	<b>TRIS, IBI SCIENTIFIC</b> CAS# 77-86-1 For use in biological and electrophoresis buffer systems Tris powder is commonly used in biological and electrophoresis buffer systems including Tris-Acetate-EDTA (TAE), Tris-Boric Acid-EDTA (TBE), Tris-Phosphate-EDTA (TPE), and Tris-Glycine (TG) buffers. The useful buffer range for TRIS of 7 - 9 coincides with the physiological pH typical of most living organisms. This is thereason it is one of the most common buffers used in the biology/biochemistry laboratory. Concentrated stock buffer solutions can be made with IBI molecular biology grade tris powder. IBI offers Tris powder in numerous sizes such as, 500 g, 1 Kg, and 5 kg. Certificates of Analysis and specifications sheets are easily accessed on this web page, just click on the desired tab below.	500 g 1 k 5k 50 k





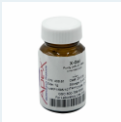


BIOREAGENTS

2  
Molecular Biology  
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2  
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Ordering Information

Catalog #	Description	Size
 <b>IB70162</b>	<b>TRIS-HCL, IBI SCIENTIFIC</b> CAS# 1185-53-1 • For use in biological and electrophoresis buffer systems Tris-HCl is commonly used in biological and electrophoresis buffer systems. Tris-HCl can be used to make a concentrated stock of buffer solutions.	500 g
 <b>IB07100</b>	<b>TRITON X-100, IBI SCIENTIFIC</b> CAS#9002-93-1 Non-ionic detergent used to denature cell membranes and to break up protein aggregates Triton X-100 is a non-ionic detergent used to denature cell membranes without denaturing the protein. Triton X-100 breaks up protein aggregates to promote enzymatic activity.	100 ml
 <b>IB72060</b> <b>IB72064</b>	<b>UREA, IBI SCIENTIFIC</b> CAS# 57-13-6 For use as a nucleic acid and protein denaturant in polyacrylamide gel electrophoresis Urea is used as a nucleic acid and protein denaturant in polyacrylamide gel electrophoresis. It has a standard concentration of 6 to 8 M.	500 g 2.5 k
 <b>18-240</b>	<b>X-Gal 1g, Molecular/Proteomic Grade, Apex Bioresearch Products</b> • 5-bromo-4-chloro-3-indolyl-beta-D-galactopyranoside • >99% Purity • Store at 4°C; protect from light and humidity. • Recommended storage temperature: -20 °C • C.A.S. R.N. [7240-90-6] • MW 408.6 • C14H15BrClNO6	1 g
 <b>20-108</b>	<b>X-Gal, 1g, Biotechnology Grade, Apex Bioresearch Products</b> • >99% Purity • (5-Bromo-4-chloro-3-indolyl-b-D-galactopyranoside) • Store at 4°C; protect from light and humidity. • For long term storage: -20°C • C.A.S. R.N. [7240-90-6] • MW 408.6 • C14H15BrClNO6	1 g
 <b>IB02264</b> <b>IB02260</b> <b>IB02265</b>	<b>X-GAL, IBI SCIENTIFIC, IBI SCIENTIFIC</b> CAS# 7240-90-6 • Used as a histochemical substrate for β-galactosidase which allows the detection of lac gene expression X-GAL is a histochemical substrate for β-galactosidase which allows the detection of lac gene expression. To make a stock solution of X-GAL, dissolve the X-GAL in dimethylformamide to make a 20 mg/ml solution. Use either a glass or polypropylene tube. Add 4 ml of this solution per liter of culture media. The tube containing the solution should be wrapped in aluminum foil to prevent damage from light and stored at -20°C.	100 mg 1 g 25 g
 <b>IB72120</b>	<b>XYLENE CYANOL, IBI SCIENTIFIC</b> CAS# 2650-17-1 Used as a tracking dye to follow progress of electrophoresis separation Co-migrates with DNA molecules to around 5Kb Xylene Cyanol FF is used as a tracking dye to monitor the progress of electrophoresis separations. The tracking dye typically migrates with the DNA molecules to around 5 Kb. Xylene Cyanol FF is the tracking dye of choice for monitoring the progress of longer electrophoresis runs.	25 g

BIOREAGENTS





**RNase Free™ & SEA Spray™**

*These reagents from High Desert Bioscience offer convenience and time savings for molecular biology researchers.*

**Features:**

Galileo Bioscience offers these specialty reagents for increased convenience and efficiency in the lab

Special blend of ingredients destroys RNase and DNases on contact.

Is a unique formulation of denaturing agents that has been shown to quickly inactivate Rnase, Dnase, RNA & DNA.

**Related Products****Ordering Information****Galileo Bioscience™ brand dry pack buffers**

see pages

**For thermal stable enzymes**

Choose from our Proofreading, HotStart, and MasterMixes selection. Quality nucleotides complete the range (see pages ).



**Ordering Information:**

Catalog #	Before	Description:	Presentation
<b>REA-1013</b>	5454	R3 RNase Removal Reagent	475 ml
<b>REA-1013-250</b>	5454.250	R3 RNase Removal Reagent Refill	250 ml
<b>REA-1013-1L</b>	5454.1000	R3 RNase Removal Reagent	1 liter
<b>REA-1013-4L</b>	-----	R3 RNase Removal Reagent	4 liters
<b>REA-1016</b>	-----	Acrylic cleaner for lab gel boxes, shields and other acrylic surfaces	Pack of 25



## IBI Scientific's Molecular Biology Grade Pure Water

Begins with pretreatment by reverse osmosis followed by deionization, ultrafiltration and is then autoclaved in the final packaging. IBI Scientific's Molecular Biology Grade Water is bottled in non-leaching, medical grade, polycarbonate bottles. These bottles are also 100% recyclable AND re-usable. Re-purpose the bottles in the lab for buffers or other aqueous solutions. This water is ideal for PCR, RT-PCR, restriction enzyme assays, modifying enzyme assays, transfection, cloning, transformation, and all general molecular biology lab procedures.

Catalog #	Description	Size
	<b>IBI Scientific's Molecular Biology Grade Pure Water</b>	125 ml
	CAS# 7732-18-5   Store at room temperature	12 x 125 ml
	• <b>Certified Nuclease Free and Bacterial Endotoxin Free.</b>	48 x 125 ml
	• <b>Aseptically filled inside an ISO 7 sterile suite.</b>	500 ml
	• <b>Filled into sterile bottles.</b>	10 x 500 ml
	• <b>Available in multiple sizes and multi-bottle packs.</b>	20 x 500 ml
		1 L
	Is ideal for use in PCR reactions, qPCR reactions, RT-PCR and RT-qPCR reactions as well as restriction enzyme assays, cloning and general molecular laboratory procedures.	6 x 1 L
		12 x 1 L
		2 L
		6 x 2 L
		10 L
	IBI Molecular Biology grade water is developed using the latest in water purification technology including reverse osmosis, EDI, UV Light and ultra-filtration all built into one large system. The EDI module contains special resins to deionize the water and achieve 18 meg-ohm of resistivity. The water then passes through a 0.2 micron filter before being exposed to a specially tuned UV light frequency that will oxidize all organic material. After UV oxidation the water passes through an ultra-filtration membrane which removes all oxidized organics and renders the bacterial endotoxin levels in the water to less than 0.005 EU/ml. Ultrafiltration also produces Nuclease Free Water, meaning No DNase, RNase or Protease.	
		
<b>18-193</b>	<b>Water, Ultra Pure, Sterile, Molecular Biology Grade, Apex Bioresearch Products</b>	100 ml
<b>18-194</b>	• RNase, DNase, Protease and Endotoxin-free	500 ml
<b>18-195</b>	• Prepared & packaged under sterile, automated conditions in an ISO certified facility	1 L
<b>18-196</b>	Apex ultra pure, molecular/proteomic grade water is suitable for use in molecular biology applications that demand assurance that the water is free from DNase, RNase, Protease and endotoxin contamination. No toxic agents, such as DEPC, are used in the manufacturing of this water, eliminating DEPC interference of enzymatic reactions. Apex ultra pure water is ideal for many fundamental procedures such as PCR, electrophoresis, DNA sequencing, and buffers for enzymatic analyses, etc.	4 x 1 L



**DEPC Treated Water, 1L, RNase, DNase FREE, Sterile, 1 L, Apex Bio Research Products 20-138**

- Diethylpyrocarbonate (DEPC)-treated Water
- RNase & DNase Free

Diethylpyrocarbonate (DEPC)-treated Water is guaranteed nuclease-free (tested for both DNase and RNase) and is suitable for all RNA work.

DEPC Treated Water is produced specifically for sensitive laboratory applications, is sterile and certified to be free of all RNase and DNase contamination. Treated with DEPC, this water serves as a reliable contamination-free source of water to use when working with RNA.




IBI Scientific's PCR Pure Water

Is our Molecular Biology Grade water packaged for use in PCR, RT-PCR and other enzymatic assays in the molecular biology lab. IBI Scientific's PCR Grade Water begins with pretreatment by reverse osmosis followed by deionization, ultrafiltration and is then autoclaved in the final packaging. IBI Scientific's PCR Grade Water is packaged in 1.8ml volume inside 1 2ml vial which makes it ideal for PCR work due to its small volume packaging. The 2 ml vial provides convenient use at the lab bench when preparing PCR reactions. It also helps prevent cross contamination or contamination of larger containers of water. Available in cases of 20, 50, or 100 vials.

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PCR Pure Water

PCR Water

Catalog #	Description	Size
 x50 <b>IB42301</b> <b>IB42302</b> <b>IB42303</b>	<b>PCR WATER IBI SCIENTIFIC</b> <ul style="list-style-type: none"><li>• Bottled in 2 ml vials</li><li>• 0.1 µm sterile-filtered into certified-clean polypropylene vials</li><li>• Steam-sterilized (autoclaved)</li><li>• 18.2 Megohm deionized</li><li>• Available in cases of 20, 50, or 100 vials</li><li>• Applications: PCR, RT-PCR, restriction enzyme assays, modifying enzyme assays, transfection, cloning, transformation, and all general molecular biology lab procedures</li></ul> <p>IBI PCR Water is ideal for all applications in a lab including PCR, RT-PCR, restriction enzyme assays, modifying enzyme assays, transfection, cloning, transformation and all general molecular biology lab procedures. IBI PCR Grade Water is designed specifically for PCR work due to its small volume packaging. The 2 ml vial provides convenient use at the lab bench when preparing PCR reactions. It also helps prevent cross contamination or contamination of larger containers of water.</p> <p>IBI PCR Water is manufactured under stringent conditions. The purification process for this 18.2 megohm product includes continuous deionization, reverse osmosis, UV-treatment, 0.1 µm filtration, followed by steam sterilization in final packaging.</p> <p>Our unique water purification process involves sterile-filtration through a 0.1 µm filter- the smallest filter (pore) size available- thus, removing all bacteria, viruses, and pyrogens. Sterility is further maintained by sterile-filtering directly into an aseptic polypropylene vial. The polypropylene vial is autoclaved in its final packaging to ensure sterilization. Sterility of water is measured by the Sterility Assurance Level (SAL). IBI PCR Grade Water maintains the highest level of sterility with a SAL=10<sup>-6</sup>. Thus, the chance of a living organism being contained in the water is one in a million. In order to maintain sterility, only open this product in a sterile environment, i.e. clean room, tissue culture fume hood, etc. After manufacturing we test our water for up to three days. Each lot is individually assayed to ensure that it meets the stated specifications prior to being released from quality control.</p> <p><b>SPECIFICATIONS:</b> Cations &amp; Anions Free: Yes   Mycoplasma Free: Yes   Sterility Assurance By: 0.1 µm pore filter   Resistivity: 18.2 mOhms   Endotoxin (LAL): ≤ 0.1 EU/ml   Electrophoresis: Yes   PCR: Yes   RT-PCR: Yes   MEA Approved: N/A   RNase: None Detected   DNase: None Detected   Nickase: None Detected   Protease: None Detected   Phosphatase: None Detected   Mycoplasma:: None Detected   Iron (Fe): Not Tested   Sterility Assured: 0.1 µm sterile-filtered and 2 X autoclaved</p>	20 Vials 50 Vials 100 Vials



## Purification Kits Guide

Catalog	Description		# Preps	Page	
96-317	Cell & Tissue DNA Miniprep Kit Gene Choice	Input: 100 - 250µl biological sample or 5 x 10 <sup>6</sup> cultured cells	Elution Volume: 50 - 200µl	50	102
96-317B				200	102
• Capable of handling a wide range of fresh or frozen sample types such as cultured cells, tail snips, whole blood, buccal swabs, body fluids and more   • Streamlined buffer system for high yield, purified DNA in less than 30 minut• Purified DNA is high-quality and ready for downstream applications like PCR, sequencing, southern blot analysis, and restriction enzyme digestion   • Simple and safe procedure free of phenol/chloroform extractions					
96-300	Gel DNA Extraction Kit Gene Choice	Binding Capacity: 10µg DNA	Elution Volume: 10 - 15µl	50	103
96-300B				200	103
Recover DNA from agarose gels in 15 minutes in as little as 10µl elution volume  • 10µg binding capacity and >90% recovery of DNA ranging between 70bp and 20kb   • Eluent is ultra-pure, highly concentrated DNA, ready for downstream   applications such as ligations, PCR, restriction enzyme digestion, and more					
96-302	PCR Purification Kit Gene Choice	Binding Capacity: 10µg DNA	Elution Volume: 10 - 15µl	50	104
96-302B				200	104
Clean-up DNA from PCR or other enzymatic reactions in 10 minutes   • Highly concentrated, ultra-pure DNA in as little as 10-15µl elution volume   • Removes all contaminants, including primers, nucleotides, enzymes and salts   • Ultra-pure DNA ready to be used in downstream applications like T-A ligations, sequencing, and restriction enzyme digestion					
96-308	Plasmid DNA Miniprep Kit	Volume of E. Coli Culture: 1 – 5 ml	Maximun Recovery: 25 µg	50	105
96-308B				200	105
Traditional alkaline-lysis method for purification from 1-5ml culture volumen: • Purify up to 25µg of plasmid DNA in 30 minutes or les   • Typical yields: 15-25µg for high copy-number; 0.1-5µg for low copy-number   • Endotoxin levels <50 EU/µg					
96-550	Plasmid DNA Midiprep Kit	Volume of E. Coli Culture: 15– 50 ml	Maximun Recovery: 25 µg		105
• Purify up to 250µg of plasmid DNA from 15-50ml overnight culture   • Fast- less than 45 minutes; no alcohol precipitation   • Utilizes filter syringes for lysate clearing step   • Endotoxin-Free (<1 EU/µg) plasmid DNA is ready for sensitive downstream applications such as transfection, cloning, NGS, etc.   • User's choice of centrifuge or vacuum protocols					
96-555	Plasmid DNA Maxiprep Kit	Volume of E. Coli Culture: 50 – 20 ml	Maximum Recovery: 1,200µg	25	105
Purify up to 1.2mg of plasmid DNA from up to 200ml bacterial cultures: • Fast- less than 45 minutes; no alcohol precipitation   • Utilizes filter syringes for lysate clearing step   • Endotoxin-Free (<1 EU/µg) plasmid DNA is ready for sensitive downstream applications such as transfection, cloning, NGS, etc.   • User's choice of centrifuge or vacuum protocols					





**Cell & Tissue DNA Miniprep Kit, Contains Proteinase K, Gene Choice® 96-317**

- Rapidly purify ultra-pure DNA from a wide range of fresh or frozen biological sample sources
- Sample types include cultured mammalian cells and tissues, whole blood, buccal swabs, body fluids, and paraffin-embedded tissues
- Capable of handling sample input up to 30mg of tissue or  $5 \times 10^6$  cultured cells
- Ultra-pure DNA is ready for downstream applications such as PCR, sequencing, restriction enzyme digestion, Southern blot analysis, etc.
- Simple and safe procedure free of phenol and chloroform
- Includes Proteinase K solution

Ordering Information:		
Catalog	Description	Presentation
96-317	PCR Purification Kit, Up to 10µg, Gene Choice®	50 Preps
96-317B	PCR Purification Kit, Up to 10µg, Gene Choice®	200 Preps

The Gene Choice® Cell & Tissue DNA Purification Kit is an innovative system that radically simplifies the extraction and purification of nucleic acids from a variety of sources. The key to this system is the new matrix that specifically, but reversibly, binds DNA or RNA under certain optimal conditions allowing proteins and other contaminants to be removed. Nucleic acids are easily eluted with deionized water or a low salt buffer. The Gene Choice® Cell & Tissue DNA Purification Kit provides an easy and rapid method for the isolation of genomic DNA for consistent PCR and Southern analysis. Up to 30 mg animal tissue, mouse tail snips, paraffin-embedded tissue, or  $5 \times 10^6$  cultured cells can be readily processed. This kit allows for the single or multiple simultaneous processing of samples. There is no need for phenol/chloroform extractions and time-consuming steps are eliminated (e.g. precipitation using isopropanol or ethanol). Purified DNA can be directly used for most applications such as PCR, Southern blotting, and restriction enzyme digestion.

**Benefits of the Gene Choice® Cell & Tissue DNA Purification Kit**

- Optimized buffers that guarantee pure DNA
- No organic extractions
- Purified DNA can be directly used for most downstream applications

**Yield and Quality of DNA**

Determine the absorbance of an appropriate dilution (20- to 50- fold) of the sample at 260 nm and then at 280 nm. The DNA concentration is calculated as follows:

$$\text{DNA concentration} = \text{Absorbance } 260 \times 50 \times (\text{Dilution Factor}) \mu\text{g/ml}$$

A value greater than 1.8 indicates greater than 90% nucleic acid. Alternatively, quantity (as well as quality) can sometimes best be determined by agarose gel/ethidium bromide electrophoresis by comparison to DNA samples of known concentrations.

If necessary, the DNA can be concentrated. Add sodium chloride to reach a final concentration of 0.1M followed by 2X volumes 100% ethanol. Mix well and incubate at -20°C for 10 minutes. Centrifuge at 10,000 x g for 15 minutes and aspirate and discard the supernatant. Add 700 µL 70% ethanol and centrifuge at 10,000 x g for 2 minutes. Aspirate and discard the supernatant, air dry the pellet for 2 minutes, and resuspend the DNA in 20 µL sterile deionized water or 10 mM Tris-HCl, pH 8.5.

**Expected Yields**

Source	Sample Amount	Yield (µg)
Whole Blood	200 ml	4-12 µg
Mouse Tail	200 mg	15-25 µg
HeLa Cells	1 x 10 <sup>6</sup> cells	5-6 µg
Liver	20 mg	13-22 µg

**Storage and Stability**

All kit components are guaranteed for at least 12 months from the date of purchase when stored as follows: Proteinase K Solution can be stored at room temperature for up to 6 months from receipt. For long-term storage (>6 months), store at 2-8°C. Store all other components at room temperature (22-25°C). Check buffers for precipitates before use. Redissolve any precipitates by warming to 37°C.





### Gel DNA Extraction Kit, Up to 10µg Gene Choice®

#### Ordering Information:

Catalog #	Presentation
96-300	50 Preps
96-300B	200 Preps

- Recover up to 10µg DNA from standard or low melt TAE/TBE-buffered agarose gels in 15 minutes or less
- Recover >90% of DNA 70bp - 20kb in an elution volume as little as 10µl
- Ultra-pure DNA is ready for downstream applications such as PCR, qPCR, cloning, sequencing, etc.
- User's choice of centrifuge or vacuum manifold protocols

The Gene Choice® Gel Extraction Kit from Genesee Scientific allows >90% recovery of ultra-pure DNA (70bp to 20kb) from standard or low melt agarose gels. In 15 minutes or less, highly concentrated DNA up to 10µg can be eluted into as little as 10µl and is ready for downstream applications such as PCR, qPCR, sequencing, cloning, southern blotting, nucleic acid labeling, in vitro transcription, restriction enzyme digestion, etc.

The Gene Choice® Gel DNA Extraction Kit is an innovative system that radically simplifies the extraction and purification of nucleic acids from DNA agarose gels. The key to this system is the matrix that specifically, but reversibly, binds DNA or RNA under optimized conditions allowing proteins and other contaminants to be removed. Nucleic acids are easily eluted with deionized water or a low salt buffer.

**Binding Capacity:** Each Micro DNA Column can bind ~10 µg of DNA

**Storage & Stability:** All of the kit components are guaranteed for at least 12 months from the date of purchase when stored at room temperature. Preparing Reagents S

#### Input

TAE or TBE buffered standard or low melt agarose gels

#### Starting Amount

<10µg DNA

#### Binding Capacity

Up to 10µg DNA

#### Elution Volume

10 - 15µl

#### Processing Time

15 minutes or less

#### Processing Mode

Centrifugation or vacuum manifold

#### Downstream Applications

PCR, qPCR, cloning, sequencing, restriction enzyme digestion, etc.

### Kit Contents

Product	96-300	96-300B
Purifications	50	200
Micro DNA Columns	50	200
2 ml Collection Tubes	50	200
GC2 Binding Buffer	30 ml	120 ml
GCW Buffer	25 ml	3 x 25 ml
Elution Buffer	30 ml	30 ml
User Manual	✓	✓



### PCR Purification Kit, Up to 10µg, Gene Choice®

- Complete purification of single or double stranded DNA from PCR or other enzymatic reactions in as little as 10µl elution volume
- Purified DNA (100bp - 10kb) is free of primers, nucleotides, enzymes, salts and other contaminants

- Ultra-pure DNA ready to be used in downstream applications such as subsequent PCR, qPCR, cloning, sequencing, restriction enzyme digestion, etc.
- Simple and safe spin column format with no need for phenol and chloroform
- User's choice of centrifuge or vacuum manifold protocols

The Gene Choice® PCR Purification Kit from Genesee Scientific yields ultra-pure, highly concentrated DNA in elution volumes as small as 10-15µl. In just 10 minutes, recover high quality, double stranded or single stranded DNA from PCR or other enzymatic reactions. Ensure complete removal of primers, nucleotides, enzymes, salts and other contaminants without the use of costly resins or toxic reagents like phenol and chloroform. Ultra-pure, highly concentrated DNA is ready to be used in downstream applications such as subsequent PCR, qPCR, cloning, sequencing, restriction enzyme digestion, etc.

#### Technical Specifications

Technical Specifications	
Input	PCR or other enzymatic reaction
Starting Amount	<10µg DNA
Binding Capacity	Up to 10µg DNA
Elution Volume	10 - 15µl
Processing Time	15 minutes or less
Processing Mode	Centrifugation or vacuum manifold
Downstream Applications	PCR, qPCR, cloning, sequencing, restriction enzyme digestion, etc.

#### Ordering Information:

Catalog	Description	Presentation
96-302	PCR Purification Kit, Up to 10µg, Gene Choice®	50 Preps
96-302B	PCR Purification Kit, Up to 10µg, Gene Choice®	200 Preps

**Plasmid Miniprep Kit, Up to 25µg Gene Choice®**

- Traditional alkaline-lysis method for purification of plasmid DNA from bacterial culture
- Simple and safe bind, wash, elute spin column procedure free of phenol and chloroform
- Purify up to 25µg of plasmid DNA from 1-5ml cultures in 30 minutes or less
- Purified plasmids are ready for a variety of downstream applications including sequencing, PCR, cloning, transformation, routine screening, etc.
- Expected yields: 15-25µg for high copy-number; 0.1-5µg for low copy-number
- Endotoxin levels <50 EU/µg

The Gene Choice® Plasmid DNA Miniprep Kit from Genesee Scientific is a traditional alkaline-lysis method plasmid purification kit capable of isolating up to 25µg of plasmid DNA from 1-5ml bacterial cultures. Complete purification in less than 30 minutes with 3 easy steps: bind, wash, and elute. Simple and safe protocol is free of phenol and chloroform. Recovers up to 15-25µg plasmid DNA for high copy-number inputs and 0.1-5µg for low copy-number inputs. Purified plasmids have endotoxin levels lower than 50 EU/µg and are ready for downstream applications such as routine screening, DNA sequencing, cloning, transformation, etc.

**Ordering Information:**

Catalog #	Presentation
<b>96-308</b>	50 Preps
<b>96-308B</b>	200 Preps

**Input:** 1 - 5ml plasmid DNA bacterial culture

**Plasmid number:** High-copy, low-copy or cosmid DNA

**Processing Time:** 30 minutes or less

**Processing Mode:** Centrifugation or vacuum manifold

**Yield:** 15 - 25µg for high copy-number & 0.1 - 5µg for low copy-number

**Downstream Applications:** Sequencing, PCR, cloning, transformation, routine screening, etc.

**Plasmid Midiprep Kit, Up to 250µg, 25 Preps/Unit Gene Choice®**

- Purify up to 250µg of endotoxin-free, transfection quality plasmid DNA from 15-50mL overnight culture
- Fast spin column procedure less than 45 minutes with no gravity flow or alcohol precipitation steps
- Utilizes syringe filters for rapid bacterial lysate clearance
- Endotoxin-free (<1EU/µg) plasmid DNA is ready for sensitive downstream applications such as transfection, sequencing, NGS, cloning and PCR
- Expected yield: 100-250µg for high copy-number; 10-50µg for low copy-number
- User's choice of centrifuge or vacuum manifold protocols

The Gene Choice® Plasmid DNA Midiprep Kit from Genesee Scientific isolates up to 250µg of endotoxin-free (<1EU/µg), transfection quality plasmid DNA from 15-50mL overnight culture. The 45-minute spin column procedure allows rapid purification without time-consuming gravity flow or alcohol precipitation steps. After clearing lysate with the provided syringe filters, simply bind-wash-elute to yield endotoxin-free plasmid DNA that is ready for sensitive downstream applications such as transfection, sequencing, NGS, cloning and PCR.

**Ordering Information:**

Catalog #	Presentation
<b>96-550</b>	25 Preps

**Input:** 15 - 50 ml plasmid DNA bacterial culture with OD600 between 2 and 3 or equivalent

**Plasmid number:** High-copy, low-copy or cosmid DNA

**Processing Time:** 45 minutes or less

**Processing Mode:** Centrifugation or vacuum manifold

**Yield:** 100 - 250µg for high copy-number & 10 - 50 µg for low copy-number

**Downstream Applications:** Transfection, sequencing, NGS, cloning, PCR, etc.

**Plasmid Maxiprep Kit, Up to 1200µg, 25 Preps/Unit Gene Choice®**

- Purify up to 1.2mg of endotoxin-free, transfection quality plasmid DNA from up to 200ml bacterial culture
- Fast spin column procedure less than 45 minutes with no gravity flow or alcohol precipitation steps
- Utilizes syringe filters for rapid bacterial lysate clearance
- Endotoxin-free (<1EU/µg) plasmid DNA is ready for sensitive downstream applications such as transfection, sequencing, NGS, cloning and PCR
- Expected yield: 600-1200µg for high copy-number; 50-300µg for low copy-number
- User's choice of centrifuge or vacuum manifold protocols

The Gene Choice® Plasmid DNA Maxiprep Kit from Genesee Scientific isolates up to 1.2mg of endotoxin-free (<1EU/µg), transfection quality plasmid DNA from up to 200ml bacterial culture. The 45-minute spin column procedure allows rapid purification without time-consuming gravity flow or alcohol precipitation steps. After clearing lysate with the provided syringe filters, simply bind-wash-elute to yield endotoxin-free plasmid DNA that is ready for sensitive downstream applications such as transfection, sequencing, NGS, cloning and PCR.

**Ordering Information:**

Catalog #	Presentation
<b>96-555</b>	25 Preps

**Input:** 50 - 200 ml plasmid DNA bacterial culture with OD600 between 2 and 3 or equivalent

**Plasmid number:** High-copy, low-copy or cosmid DNA

**Processing Time:** 45 minutes or less

**Processing Mode:** Centrifugation or vacuum manifold

**Yield:** 600 - 1200µg for high copy-number & 50 - 300µg for low copy-number

**Downstream Applications:** Transfection, sequencing, NGS, cloning, PCR, etc.

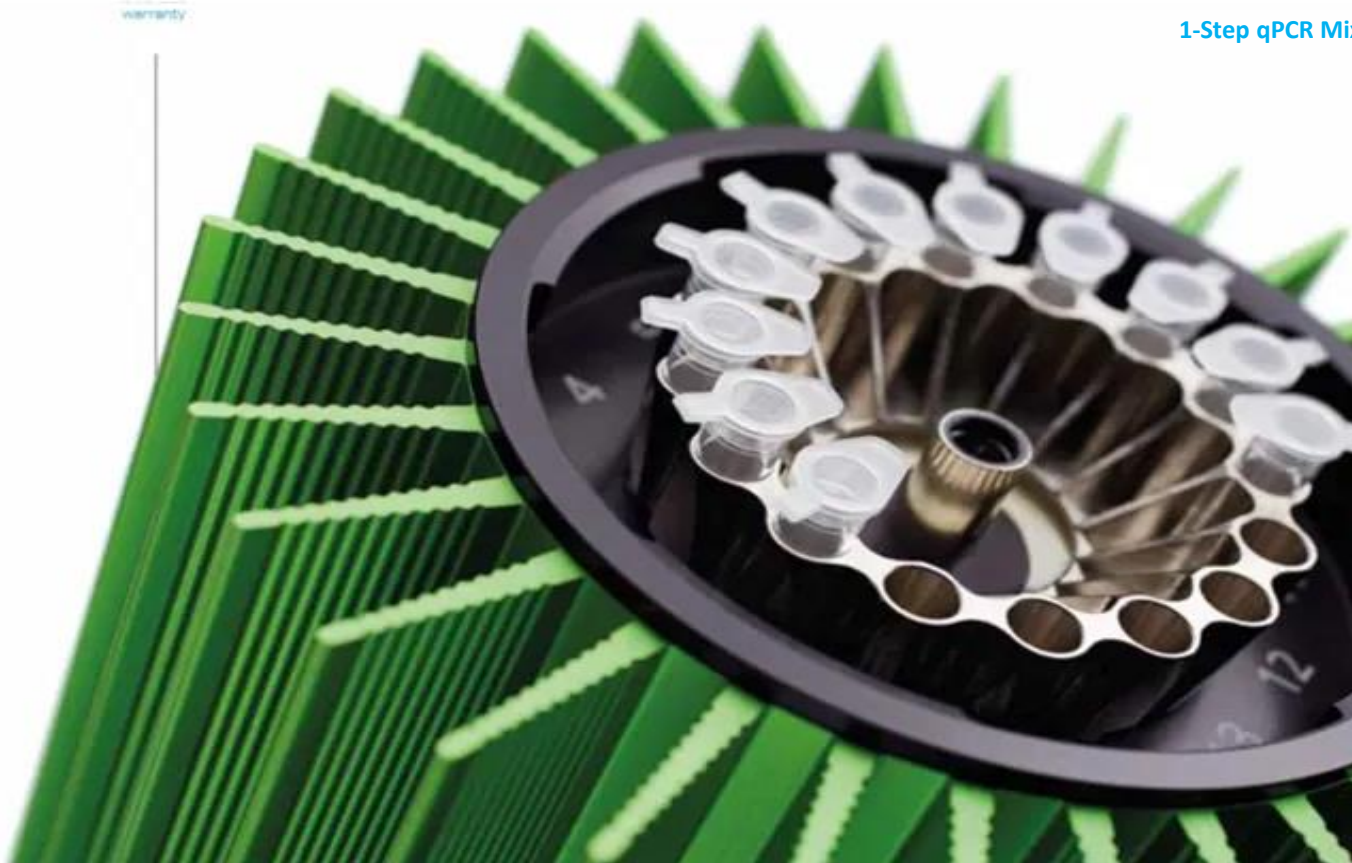
# Azura Genomics™ Brand qPCR Reagents



qPCR Selection Guide Pages 107-108

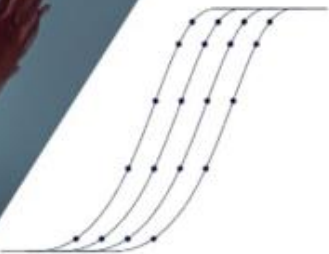
qPCR Taq Pages 109-115

1-Step qPCR Mix Pages 116-119





# qPCR. Faster. Better



## AzuraQuant™ Selection Guide

Today, real-time PCR is considered the gold standard for accurate, sensitive and fast measurement of gene expression. Real-Time PCR, also referred to as quantitative PCR (qPCR) was developed as a highly sensitive, rapid and efficient method for nucleic acid detection. This ever-popular technique is based on conventional PCR with the following improvements:

- qPCR combines amplification and detection in a single step.
- It has an increased limit of detection and therefore can use smaller amounts of starting material than traditional PCR.
- The DNA produced can be quantified based on fluorescent detection.

Azura Genomics has engineered real-time PCR solutions which deliver unrivalled sensitivity in low-copy assays and robust performance in the presence of common PCR inhibitors. In addition, our scientists have developed a unique buffer chemistry including novel additives for advanced multiplexing capability, delivering the same high efficiency, early Ct and reaction speed in complex multiplex assays as standard single-plex reactions. The proprietary buffer systems and our enzyme modifications allow for exceptional performance with GC-rich and AT-rich sequences and the option of ultra-fast cycling.

### Applied BioSystems

- **StepOne™**
- **StepOne™ Plus,**
- **7900**
- **7900HT**
- **7900HT Fast**
- **7000**
- **7300**
- **7700**

AzuraQuant™ Green Fast PCR Mix HiRox  
AzuraQuant™ Green 1-Step qRT-PCR Kit HiRox  
AzuraQuant™ Probe Fast qPCR Mix HiRox  
AzuraQuant™ Probe 1-Step qRT-PCR Kit HiRox  
AzuraView™ Green 1-Step qPCR Blue Mix HR  
AzuraView™ GreenFast qPCR Blue Mix HR

- **QuantStudio™ 12K Flex**
- **7500**
- **7500 Fast**
- **ViiA7™**
- **QuantStudio™ 3**
- **QuantStudio™ 5**
- **QuantStudio™ 6**
- **QuantStudio™ 7**

AzuraQuant™ Green Fast qPCR Mix LoRox  
AzuraQuant™ Green One-Step qPCR Mix LoRox  
AzuraQuant™ Probe Fast qPCR Mix LoRox  
AzuraQuant™ Probe 1-Step qRT-PCR Kit LoRox  
AzuraView™ GreenFast qPCR Blue Mix LR

2  
Selection  
Guide

## AzuraView™ Green Fast qPCR Blue Mix



### The Ultra-Sensitive, Best-in-Class Real Time PCR SYBR® Green Master Mix

AzuraView™ Green Fast qPCR Blue Mix is an ultrasensitive 2x master mix comprised of a non-inhibitory intercalating dye, Azura HS Taq DNA Polymerase, and a highly optimized reaction buffer with a blue tracer dye for use in SYBR® real-time quantitative assays. AzuraView™ Green Fast qPCR Blue Mix reliably quantifies any DNA template including cDNA, genomic DNA, and low copy number viral DNA sequences. The ready-to-use 2x master mix delivers an increased limit of detection with best-in-class sensitivity, and the inert blue dye provides an easy to see, easy to pipette format. In order to determine instrument compatibility and the most suitable formulation, please refer to our qPCR Reagent Compatibility Tool.

#### Applications

- Fluorescent SYBR® Green detection of cDNA, genomic DNA and viral DNA
- Gene expression analysis
- Detection of sequence variants
- Pathogen detection
- SNP Genotyping and siRNA validation

#### Flexibility

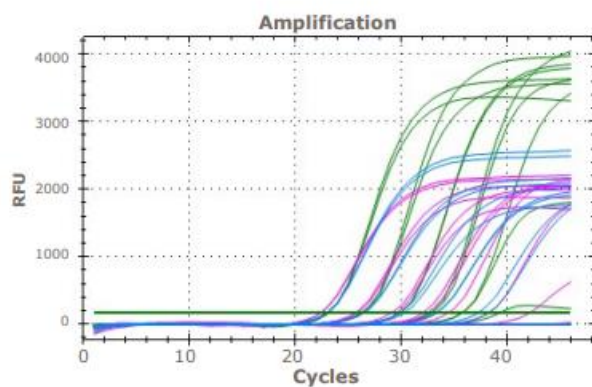
Compatible with all standard and fast cycling instruments and a wide range of cycling conditions

#### Easy to See and Easy to Pipette

Contains inert blue tracer dye to simplify the set-up of PCR plates and strip tubes Excellent Stability Increased resistance to ambient temperatures and up to 40 freeze-thaw cycles

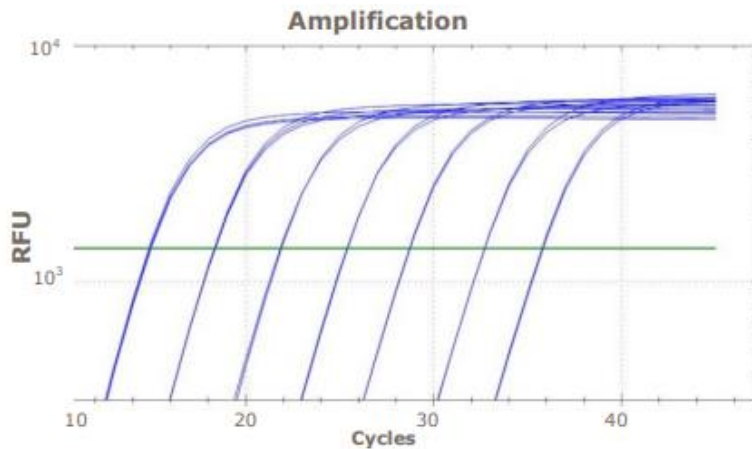
#### Sensitivity and Speed

A non-inhibitory intercalating dye and optimized buffer chemistry provide an increased limit of detection



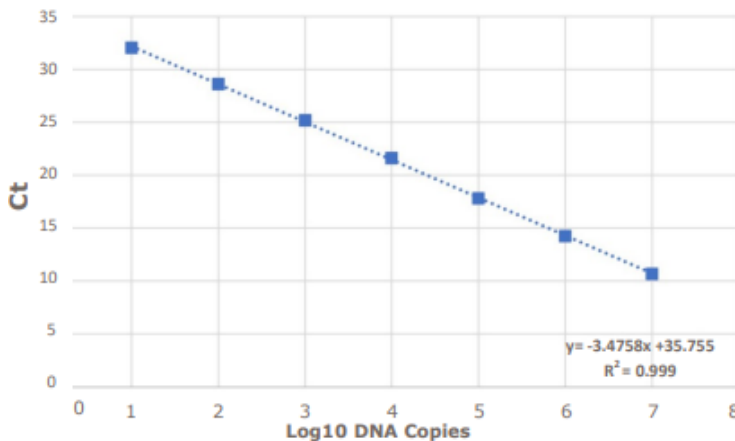
**Fig 1. Comparison of AzuraView™ Green Fast qPCR Blue Mix LR (green) with competitors BioRad (blue) and Applied Biosystems (pink) using multiple dilutions of cDNA (PGK-1 gene target).**

Cycling Conditions: 95°C 2 min hot start, 45 cycles of 95°C 10 sec, 60°C 15 sec on BioRad CFX96

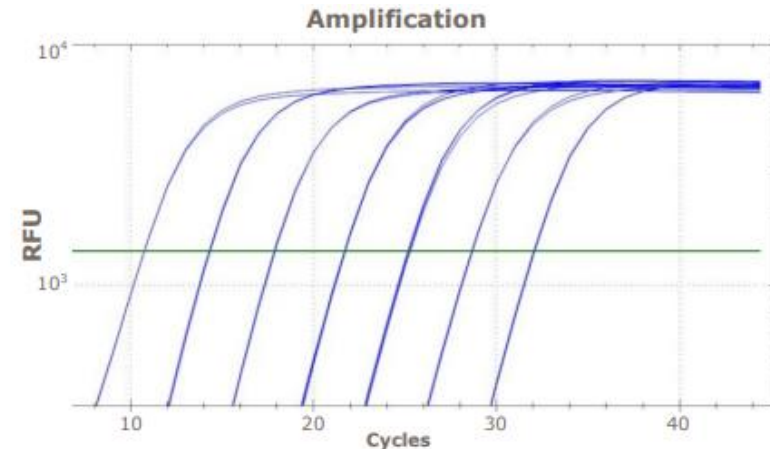
**The Ultra-Sensitive, Best-in-Class Real Time PCR SYBR® Green Master Mix**

**Fig 1. SYBR® Green DNA standard curve derived from B2M gene target amplification using AzuraView™.**

qPCR using fast cycling over a broad dynamic range. Real time PCR of B2M gene sequence from a 10-fold dilution series of murine genomic DNA using AzuraView™ Green Fast qPCR Blue Mix LR

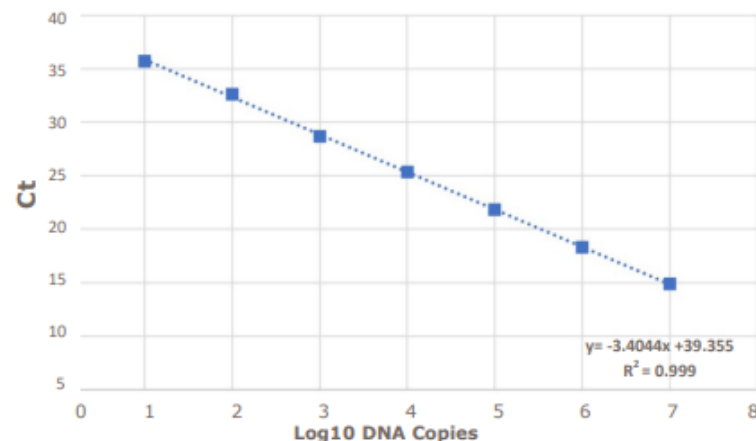


**Fig 2. High qPCR efficiency:** standard curve of B2M amplification showing accurate qPCR over six orders of magnitude with AzuraView™ Green Fast qPCR Blue Mix LR



**Fig 3. SYBR® Green DNA standard curve derived from GAPDH gene target amplification using AzuraView™.**

Highly efficient and sensitive qPCR: Real time PCR of GAPDH gene sequence from a 10-fold dilution series of murine genomic DNA (10–107 copies) using AzuraView™ Green Fast qPCR Blue Mix LR



**Fig 4. High qPCR efficiency:** standard curve of GAPDH amplification showing accurate qPCR over six orders of magnitude with AzuraView™ Green Fast qPCR Blue Mix LR



Ordering Information:

Catalog	Description	Presentation
AZ-2301	AzuraView GreenFast qPCR Blue Mix LR	100 Reactions 1 x 1 ml
AZ-2305	AzuraView GreenFast qPCR Blue Mix LR	500 Reactions 5 x 1 ml
AZ-2320	AzuraView GreenFast qPCR Blue Mix LR	2000 Reactions 20 x 1 ml
AZ-2350	AzuraView GreenFast qPCR Blue Mix LR	5000 Reactions 10 x 5 ml
<b>Compatibility Table</b> <ul style="list-style-type: none"><li>• <b>Applied BioSystems:</b> QuantStudio™ 12K Flex   7500   7500 Fast   ViiA7™   QuantStudio™ 3   QuantStudio™ 5   QuantStudio™ 6   QuantStudio™ 7</li><li>• <b>BioRad:</b> CFX384™   CFX96   MiniOpticon   Chromo4™   Opticon™   Opticon2™</li><li>• <b>Agilent:</b> (Stratagene) MX3005P™   MX3000P™   MX4000P™</li><li>• <b>Cepheid:</b> SmartCycler™</li><li>• <b>Eppendorf:</b> Mastercycler™ ep realplex 2S   Mastercycler™ ep realplex</li><li>• <b>IT-IS Life Science:</b> MyGo™ Pro   MyGo™ Mini</li><li>• <b>Qiagen Corbett:</b> Rotor-Gene™ 6000   Rotor-Gene™ 3000   Rotor-Gene™ Q</li><li>• <b>Roche:</b> LightCycler™ Nano   LightCycler™ 480   LightCycler™ 96</li></ul>		
AZ-2401	AzuraView GreenFast qPCR Blue Mix HR	100 Reactions 1 x 1 ml
AZ-2405	AzuraView GreenFast qPCR Blue Mix HR	500 Reactions 5 x 1 ml
AZ-2420	AzuraView GreenFast qPCR Blue Mix HR	2000 Reactions 20 x 1 ml
AZ-2450	AzuraView GreenFast qPCR Blue Mix HR	5000 Reactions 10 x 5 ml
<b>Compatibility Table:</b> <ul style="list-style-type: none"><li>• <b>Applied BioSystems:</b> StepOne™   StepOne™ Plus   7900   7900HT   7900HT Fast   7000   7300   7700</li></ul>		





# AzuraQuant™ Green Fast qPCR Mix

**qPCR. Faster. Better.**

The AzuraQuant™ Green Fast qPCR Mix is a ready-to-use 2x master mix comprised of a non-inhibitory intercalating dye, Azura HS Taq DNA Polymerase and a highly optimized reaction buffer for use in real-time quantitative PCR assays. The AzuraQuant™ Green Fast qPCR Mix reliably quantifies any DNA template including cDNA, complex GC-rich genomic sequences, viral DNA and low-copy number targets. The ready-to-use 2x master mix delivers an increased limit of detection with best-in-class sensitivity, speed, and reproducibility. The AzuraQuant™ Green Fast qPCR Mix requires little if any optimization. In order to determine instrument compatibility and the most appropriate formulation, please refer to our qPCR Reagent Compatibility Tool.

**Applications**

- Fluorescent SYBR™ Green detection of cDNA and genomic DNA,
- Gene expression analysis
- Detection of sequence variants

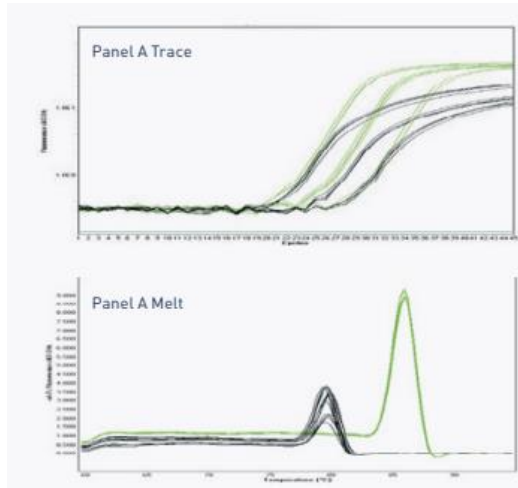
**Flexibility** Compatible with standard and fast cycling instruments and a wide range of cycling parameters  
 Accurate Quantification and Specificity Hot-Start chemistry reduces primer-dimer formation and allows room-temperature assembly

**Broad Compatibility**

High-performance amplification from any DNA template including complex GC-rich sequences

**Sensitivity and Speed**

A non-inhibitory intercalating dye and optimized buffer chemistry provides an increased limit of detection



**Fig 1. Superior overall performance and speed of AzuraQuant Green Fast qPCR Mix (green) compared with PowerUp SYBR Mix (black).**

qPCR amplification and melt trace of mouse housekeeping gene GAPDH from a cDNA dilution series.



## Ordering Information:

Catalog	Description	Presentation
<b>AZ-2101</b>	AzuraQuant™ Green Fast qPCR Mix LoRox	100 Reactions 1 x 1 ml
<b>AZ-2105</b>	AzuraQuant™ Green Fast qPCR Mix LoRox	500 Reactions 5 x 1 ml
<b>AZ-2120</b>	AzuraQuant™ Green Fast qPCR Mix LoRox	2000 Reactions 20 x 1 ml
<b>AZ-2150</b>	AzuraQuant™ Green Fast qPCR Mix LoRox	5000 Reactions 10 x 5 ml
<b>Compatibility Table</b> <ul style="list-style-type: none"> <li>• <b>Applied BioSystems:</b> QuantStudio™ 12K Flex   7500   7500 Fast   ViiA7™   QuantStudio™ 3   QuantStudio™ 5   QuantStudio™ 6   QuantStudio™ 7</li> <li>• <b>BioRad:</b> CFX384™   CFX96   MiniOpticon   Chromo4™   Opticon™   Opticon2™</li> <li>• <b>Agilent:</b> (Stratagene) MX3005P™   MX3000P™   MX4000P™</li> <li>• <b>Cepheid:</b> SmartCycler™</li> <li>• <b>Eppendorf:</b> Mastercycler™ ep realplex 2S   Mastercycler™ ep realplex</li> <li>• <b>IT-IS Life Science:</b> MyGo™ Pro   MyGo™ Mini</li> <li>• <b>Qiagen Corbett:</b> Rotor-Gene™ 6000   Rotor-Gene™ 3000   Rotor-Gene™ Q</li> <li>• <b>Roche:</b> LightCycler™ Nano   LightCycler™ 480   LightCycler™ 96</li> </ul>		
<b>AZ-2001</b>	<b>AzuraQuant™ Green Fast qPCR Mix HiRox</b>	100 Reactions 1 x 1 ml
<b>AZ-2005</b>	<b>AzuraQuant™ Green Fast qPCR Mix HiRox</b>	500 Reactions 5 x 1 ml
<b>AZ-2020</b>	<b>AzuraQuant™ Green Fast qPCR Mix HiRox</b>	2000 Reactions 20 x 1 ml
<b>AZ-2050</b>	<b>AzuraQuant™ Green Fast qPCR Mix HiRox</b>	5000 Reactions 10 x 5 ml
<b>Compatibility Table:</b> <b>Applied BioSystems®</b> <ul style="list-style-type: none"> <li>• 7000, 7300, 7700</li> <li>• 7900, 7900HT,</li> <li>• 7900HT Fast</li> <li>• StepOne, StepOne Plus</li> <li>• 7500, 7500 Fast, ViiA7</li> <li>• QuantStudio 3, 5, 6, 7</li> <li>• QuantStudio 12K Flex</li> </ul>		



### qPCR. Faster. Better.

The AzuraQuant™ Probe Fast qPCR Mix is a ready-to-use 2x master-mix for use in real-time quantitative PCR assays and has been formulated for probe-detection technology, including TaqMan®, Scorpions® and molecular beacon probes.

The AzuraQuant™ Probe Fast qPCR Mix is comprised of Azura HS Taq DNA Polymerase and an optimized buffer chemistry providing robust real-time PCR and broad range detection for increased sensitivity, speed, and reproducibility. In addition, the 2x master-mix exhibits excellent sensitivity in complex multiplex reactions, in which multiple amplicons can be detected without a loss in efficiency. The AzuraQuant™ Probe Fast qPCR Mix requires little if any optimization and can be used to quantify any DNA templates including cDNA, genomic DNA, and low copy number viral sequences while providing resistance to many PCR inhibitors. The AzuraQuant™ Probe Fast qPCR Mix also combines rapid antibody-mediated hot-start activation and processive enzyme chemistry, making it compatible with both standard and fast instrument cycling programs. In order to determine instrument compatibility and the most suitable formulation, please refer to our qPCR Reagent Compatibility Tool.

### Applications

- Probe-based detection of DNA and cDNA
- Gene Expression analysis
- Two-Step RT-qPCR
- Multiplex qPCR

### Flexibility

Compatible with standard and fast cycling instruments and a wide range of cycling parameters

### Accurate Quantification and Specificity

Hot-Start chemistry reduces primer-dimer formation and allows room-temperature assembly

### Broad Compatibility

High-performance amplification from any DNA template including complex GC-rich sequences

### Sensitivity and Speed

Advanced formulation provides unrivalled sensitivity in singleplex as well as complex multiplex assays.



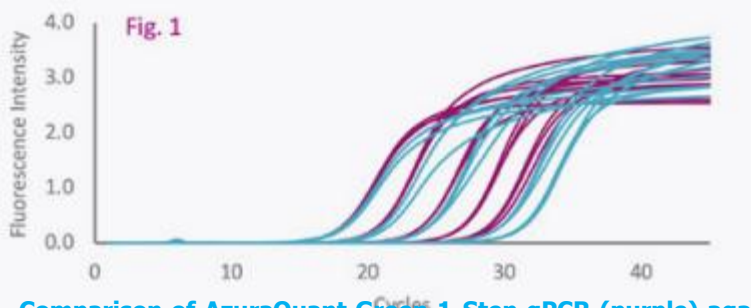
## Ordering Information:

Catalog	Description	Presentation
<b>AZ-2801</b>	<b>AzuraQuant Probe Fast qPCR Mix HiRox</b>	100 Reactions 1 x 1 ml
<b>AZ-2805</b>	<b>AzuraQuant Probe Fast qPCR Mix HiRox</b>	500 Reactions 5 x 1 ml
<b>AZ-2820</b>	<b>AzuraQuant Probe Fast qPCR Mix HiRox</b>	1000 Reactions 10 x 1 ml
<b>AZ-2850</b>	<b>AzuraQuant Probe Fast qPCR Mix HiRox</b>	5000 Reactions 10 x 5 ml
<b>Compatibility Table:</b> <ul style="list-style-type: none"> <li><b>Applied BioSystems®:</b> 7000, 7300, 7700 7900, 7900HT, 7900HT Fast StepOne, StepOne Plus 7500, 7500 Fast, ViiA7 QuantStudio 3, 5, 6, 7 QuantStudio 12K Flex</li> </ul>		
<b>AZ-2801</b>	<b>AzuraQuant Probe Fast qPCR Mix LoRox</b>	100 Reactions 1 x 1 ml
<b>AZ-2805</b>	<b>AzuraQuant Probe Fast qPCR Mix LoRox</b>	500 Reactions 5 x 1 ml
<b>AZ-2820</b>	<b>AzuraQuant Probe Fast qPCR Mix LoRox</b>	1000 Reactions 10 x 1 ml
<b>AZ-2850</b>	<b>AzuraQuant Probe Fast qPCR Mix LoRox</b>	5000 Reactions 10 x 5 ml
<b>Compatibility Table:</b> <ul style="list-style-type: none"> <li><b>Agilent®:</b> MX4000P   MX3000P   MX3005P   AriaMx   AriaDx</li> <li><b>Applied BioSystems®:</b> 7500   7500 Fast   ViiA7   QuantStudio 3, 5, 6, 7   QuantStudio 12K Flex</li> </ul>		
<b>AZ-2901</b>	<b>AzuraQuant Probe Fast qPCR Mix NoRox</b>	100 Reactions 1 x 1 ml
<b>AZ-2905</b>	<b>AzuraQuant Probe Fast qPCR Mix NoRox</b>	500 Reactions 5 x 1 ml
<b>AZ-2920</b>	<b>AzuraQuant Probe Fast qPCR Mix NoRox</b>	2000 Reactions 20 x 1 ml
<b>AZ-2950</b>	<b>AzuraQuant Probe Fast qPCR Mix NoRox</b>	5000 Reactions 10 x 5 ml
<b>Compatibility Table</b> <ul style="list-style-type: none"> <li><b>BioRad®:</b> CFX96   CFX384   CFX Connect   iCycler   MyIQ   IQ5   Opticon   Opticon 2   MiniOpticon   Chromo4</li> <li><b>Cepheid®:</b> SmartCycler™</li> <li><b>Eppendorf®:</b> Mastercycler™ ep realplex   Mastercycler™ ep realplex 2S</li> <li><b>Qiagen® Corbett:</b> Rotor-Gene™ 6000   Rotor-Gene™ 3000   Rotor-Gene™ Q</li> <li><b>Roche®:</b> LightCycler 96   LightCycler 480   LightCycler Nano</li> </ul>		

**qPCR. Faster. Better.**

The AzuraQuant™ Green 1-Step qPCR Mix is a ready-to-use 2x master mix and companion 20x thermostable reverse transcriptase for use in highly sensitive real-time SYBR™ RT-qPCR assays directly from RNA templates.

The AzuraQuant™ Green 1-Step qPCR Mix utilizes a robust 2x master-mix and 20x AzuraScript, a thermostable Reverse Transcriptase and RNase inhibitor blend. This highly efficient complex of enzymes provides for reproducible first-strand cDNA synthesis and real-time PCR in a single tube directly from RNA. AzuraQuant™ Green 1-Step qPCR Mix also contains a non-inhibitory intercalating dye and incorporates dUTP which provides for the optional use of uracil DNA glycosylase to control carry-over contamination. The 2x master-mix can be used to quantify a specific target RNA from either total RNA or mRNA while reducing the number of pipetting steps and time to result. In order to determine instrument compatibility and the most appropriate formulation, please refer to our qPCR Reagents Compatibility Tool.



**Comparison of AzuraQuant Green 1-Step qPCR (purple) against competitor Qiagen (blue)**

**Applications**

- Fluorescent SYBR™ Green detection directly from RNA
- Gene expression analysis
- Detection of sequence variants

**Flexibility**

Compatible with standard and fast cycling instruments and a wide range of cycling parameters.

**Convenience**

One-Tube, One-Step SYBR Green qPCR directly from Total RNA

**Sensitivity and Speed**

A non-inhibitory intercalating dye and optimized buffer chemistry provides an increased limit of detection.

**Fig 1. Shows amplification traces of the ACTG1 gene from a dilution series of total RNA extracted from rat liver**

Total RNA concentration varied from 20pg to 200ng per 20µl PCR reaction

AzuraQuant Green 1-Step qPCR Mix exhibits equal performance at high RNA concentrations and superior performance at lower RNA concentrations

Cycling conditions: 45°C 10 min cDNA synthesis, 95°C 2 min hot start, 45 cycles of 95°C 10 sec, 60°C 10 sec on BioRad CFX96



**Ordering Information:**

Catalog	Description	Presentation
<b>AZ-3701</b>	<b>AzuraQuant™ Green 1-Step qPCR Mix LoRox</b>	100 Reactions 1 x 1 ml
<b>AZ-3705</b>	<b>AzuraQuant™ Green 1-Step qPCR Mix LoRox</b>	500 Reactions 5 x 1 ml
<b>AZ-3720</b>	<b>AzuraQuant™ Green 1-Step qPCR Mix LoRox</b>	2000 Reactions 20 x 1 ml
<b>AZ-3750</b>	<b>AzuraQuant™ Green 1-Step qPCR Mix LoRox</b>	5000 Reactions 10 x 5 ml
<b>Compatibility Table</b> <ul style="list-style-type: none"> <li>• <b>Applied BioSystems®:</b> 7500, 7500 Fast, ViiA7   QuantStudio 3, 5, 6, 7   QuantStudio 12K Flex</li> <li>• <b>BioRad®:</b> CFX96   CFX384   CFX Connect   Opticon   Opticon 2   MiniOpticon   Chromo4</li> <li>• <b>Agilent®:</b> (Stratagene) MX4000P   MX3000P   MX3005P   AriaMx AriaDx</li> <li>• <b>Cepheid:</b> SmartCycler™</li> <li>• <b>Eppendorf®:</b> Mastercycler™ ep realplex   Mastercycler™ ep realplex 2S</li> <li>• <b>IT-IS Life Science:</b> MyGo™ Pro   MyGo™ Mini</li> <li>• <b>Qiagen® Corbett:</b> Rotor-Gene™ 6000   Rotor-Gene™ 3000   Rotor-Gene™ Q</li> <li>• <b>Roche®:</b> LightCycler 96   LightCycler 480   LightCycler Nano</li> </ul>		
<b>AZ-3501</b>	AzuraQuant Green 1-Step qPCR Mix HiRox	100 Reactions 1 x 1 ml
<b>AZ-3505</b>	AzuraQuant Green 1-Step qPCR Mix HiRox	500 Reactions 5 x 1 ml
<b>AZ-3510</b>	AzuraQuant Green 1-Step qPCR Mix HiRox	1000 Reactions 10 x 1 ml
<b>AZ-3550</b>	AzuraQuant Green 1-Step qPCR Mix HiRox	5000 Reactions 10 x 5 ml
<b>Compatibility Table:</b> <b>Applied BioSystems®</b> <ul style="list-style-type: none"> <li>• 7000, 7300, 7700</li> <li>• 7900, 7900HT,</li> <li>• 7900HT Fast</li> <li>• StepOne, StepOne Plus</li> </ul>		





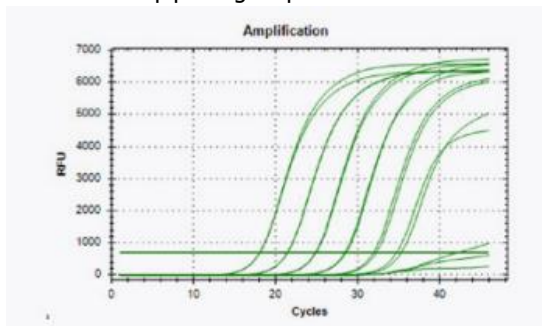
# AzuraQuant™ Probe 1-Step qPCR Mix

2

AzuraQuant™ Green  
1-Step qPCR Mix**qPCR. Faster. Better.**

The AzuraQuant™ Probe 1-Step qPCR Mix is a ready-to-use 2x master mix and companion 20x thermostable reverse transcriptase for use in highly sensitive RT-qPCR and has been formulated for probe-detection technology, including TaqMan®, Scorpions® and molecular beacon probes

The AzuraQuant™ Probe 1-Step qPCR Mix utilizes a robust 2x master-mix and 20x AzuraScript, a thermostable Reverse Transcriptase and RNase inhibitor blend. This highly efficient complex of enzymes provides for reproducible first-strand cDNA synthesis and real-time PCR in a single tube directly from RNA. AzuraQuant™ Probe 1-Step qPCR Mix delivers earlier quantification cycle values (Ct) and broad range detection for increased sensitivity, speed, reliability and reproducibility. The 2x master-mix can be used to quantify a specific target RNA from either total RNA or mRNA while reducing the number of pipetting steps and time to result..



**LEFT: Highly efficient 1-Step detection of the 18S rRNA fragment in a dilutions series of RNA from 10 µg to 10 pg using AzuraQuant Probe 1-Step qPCR Mix LoRo**

**Applications**

- Gene expression analysis
- Detection of sequence variants
- Multiplex RT-qPCR
- TaqMan® gene expression analysis directly from RNA and low-copy number detection from viral RNA samples
- Pathogen detection
- Viral Quantitation
- Biomarker discovery
- Gene knock-down validation
- Microarray validation and detection of low copy number targets

**Flexibility**

Compatible with standard and fast cycling instruments and a wide range of cycling parameters.

**Accurate Quantification**

Hot-Start chemistry reduces primer-dimer formation and allows room-temperature assembly.

**Superior Multiplex Capability**

Advanced formulation provides unrivalled sensitivity in singleplex as well as complex multiplex assays

## Ordering Information:

Catalog	Description	Presentation
<b>AZ-4301</b>	<b>AzuraQuant™ Probe 1-Step qPCR Mix NoRox</b>	100 Reactions 1 x 1 ml
<b>AZ-4305</b>	<b>AzuraQuant™ Probe 1-Step qPCR Mix NoRox</b>	500 Reactions 5 x 1 ml
<b>AZ-4310</b>	<b>AzuraQuant™ Probe 1-Step qPCR Mix NoRox</b>	1000 Reactions 10 x 1 ml
<b>AZ-4350</b>	<b>AzuraQuant™ Probe 1-Step qPCR Mix NoRox</b>	5000 Reactions 10 x 5 ml
<b>Compatibility Table</b> <b>BioRad®:</b> CFX96 CFX384 CFX Connect iCycler, MyIQ IQ5 Opticon, Opticon 2 MiniOpticon, Chromo4 <b>Cepheid®</b> SmartCycler <b>Eppendorf®:</b> Mastercycler ep realplex Mastercycler ep realplex 2S <b>Roche®:</b> LightCycler 96 LightCycler 480 LightCycler Nano <b>Qiagen® (Corbett)</b> Rotor-Gene Q Rotor-Gene 3000 Rotor-Gene 6000		
<b>AZ-4101</b>	<b>AzuraQuant™ Probe 1-Step qPCR Mix LoRox</b>	100 Reactions 1 x 1 ml
<b>AZ-4105</b>	<b>AzuraQuant™ Probe 1-Step qPCR Mix LoRox</b>	500 Reactions 5 x 1 ml
<b>AZ-4110</b>	<b>AzuraQuant™ Probe 1-Step qPCR Mix LoRox</b>	1000 Reactions 10 x 1 ml
<b>AZ-4150</b>	<b>AzuraQuant™ Probe 1-Step qPCR Mix LoRox</b>	5000 Reactions 10 x 5 ml
<b>Compatibility Table</b> <b>Agilent®</b> MX4000P MX3000P MX3005P AriaMx, AriaDx <b>Applied BioSystems®:</b> 7500, 7500 Fast, ViiA7 QuantStudio 3, 5, 6, 7 QuantStudio 12K Flex		
<b>AZ-3901</b>	<b>AzuraQuant™ Probe 1-Step qPCR Mix HiRox</b>	100 Reactions 1 x 1 ml
<b>AZ-3905</b>	<b>AzuraQuant™ Probe 1-Step qPCR Mix HiRox</b>	500 Reactions 5 x 1 ml
<b>AZ-3910</b>	<b>AzuraQuant™ Probe 1-Step qPCR Mix HiRox</b>	1000 Reactions 10 x 1 ml
<b>AZ-3950</b>	<b>AzuraQuant™ Probe 1-Step qPCR Mix HiRox</b>	5000 Reactions 10 x 5 ml
<b>Compatibility Table</b> <b>Applied BioSystems®:</b> 7000, 7300, 7700 7900, 7900HT, 7900HT Fast StepOne, StepOne Plus		
<b>AZ-4401</b>	<b>AzuraQuant™ Probe 1-Step qPCR Virus Mix</b>	100 Reactions 1 x 1 ml
<b>AZ-4405</b>	<b>AzuraQuant™ Probe 1-Step qPCR Virus Mix</b>	500 Reactions 5 x 1 ml
<b>AZ-4410</b>	<b>AzuraQuant™ Probe 1-Step qPCR Virus Mix</b>	1000 Reactions 10 x 1 ml
<b>AZ-4450</b>	<b>AzuraQuant™ Probe 1-Step qPCR Virus Mix</b>	5000 Reactions 10 x 5 ml
<b>Compatibility Table:</b> <b>BioRad®:</b> CFX96 CFX384 CFX Connect iCycler, MyIQ IQ5 Opticon, Opticon 2 MiniOpticon, Chromo4 <b>Cepheid®</b> SmartCycler <b>Eppendorf®:</b> Mastercycler ep realplex Mastercycler ep realplex 2S <b>Roche®:</b> LightCycler 96 LightCycler 480 LightCycler Nano <b>Qiagen® (Corbett)</b> Rotor-Gene Q Rotor-Gene 3000 Rotor-Gene 6000		



SCIENTIFIC  
Building Quality Scientific  
ISO 9001 Certified

# IBI Scientific™ brand RNA Reagents

## Structure of RNA

Circulating Cell-Free DNA/RNA Kits Page 121

DNA-RNA-Protein Extraction Kits Page 122

RNA Stabilization Solution Page 123

RNA Extraction Chemicals Pages 124-125

RNA Columns Page 126

Isolate Kits Pages 127-130

### PYRIMIDINES

miRNA Kits

Total RNA Bacteria Kits

Total RNA Blood Kits

Cytosine

Total RNA Cultured Cell Kits

Total RNA Miniprep Kit

### PURINES

Total RNA Tissue Kits

Viral DNA/RNA Isolation

Yeast RNA Isolation Kit

Adenine

Guanine

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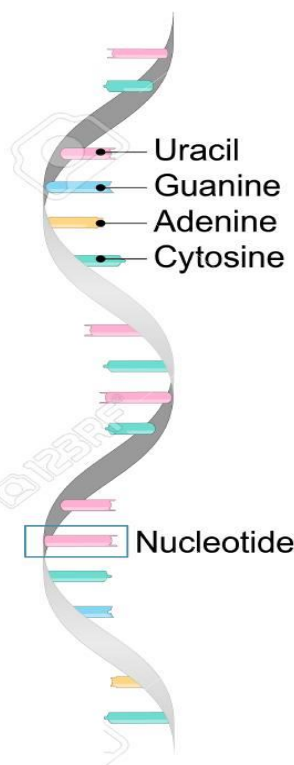
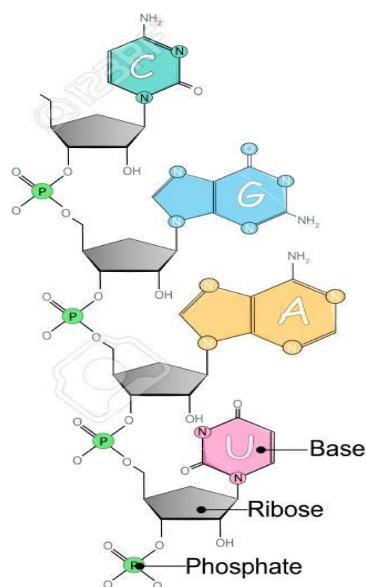
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### CELL-FREE DNA/RNA EXTRACTION KIT IBI SCIENTIFIC

- Sample: 1ml - 5ml of serum or plasma
- Time: Purify cfDNA/RNA within 60 minutes
- Format: cfDNA/RNA spin columns combined with column extension tubes using centrifuge or vacuum.
- Yield: 1 - 100ng of cfDNA/RNA per/ml of serum or plasma.

#### Ordering Information:

Catalog	Presentation
IB47720	2 Preps
IB47721	25 Preps
IB47722	50 Preps
IB47723	100 Preps

The cfDNA/RNA Extraction Kit is designed for rapid isolation of high-quality circulating cell-free DNA/RNA from up to 5 ml of serum or plasma. The kit includes uniquely designed Column Extension Tubes which allow for increased sample volume and yield. Biological liquid samples are lysed using Proteinase K and a buffer containing chaotropic salt. The lysate is mixed with a binding buffer to facilitate cfDNA/RNA binding to the column membrane. The column is then washed and cfDNA/RNA is eluted with RNase-free Water. The entire procedure can be completed within 60 minutes and the purified cfDNA/RNA is ready for use in a variety of downstream applications such as qPCR, Next-Generation sequencing and DNA methylation analysis.

#### Quality Control

The quality of the cfDNA/RNA Extraction Kit is tested on a lot-to-lot basis by isolating cfDNA/RNA from 1 ml of plasma. Following the purification process, the purified cfDNA/RNA integrity is assessed by qPCR.

#### Specifications:

- sample size: 1ml - 5ml of serum or plasma
- Time: within 60 minutes
- Format: cfDNA/RNA spin columns combined with column extension tubes using centrifuge or vacuum.
- Yield: 1 - 100ng of cfDNA/RNA per/ml of serum or plasma
- Elution volume: 30 - 50ul
- Applications: qPCR, Next Generation Sequencing and DNA Metylation Analysis.
- Storage: Dry at room temp. (20 to 25 C)

#### Components

Catalogue Number	IB47720	IB47721	IB47722	IB47723
CF1 Buffer	10 ml	60 ml x 2	220 ml	220 ml x 2
CF2 Buffer <sup>1</sup>	6 ml x 2 (4 ml x 2)	150 ml (100 ml)	300 ml (200 ml)	300 ml x 2 (200 ml x 2)
Proteinase K <sup>2</sup>	11 mg (Add RNase-free Water)	135 mg (13.5 ml)	55 mg x 5 (5.5 ml x 5)	135 mg x 4 (13.5 ml x 4)
W1 Buffer	2 ml	30 ml	50 ml	50 ml
Wash Buffer <sup>3</sup>	1 ml (Add Ethanol)	12.5 ml (50 ml)	12.5 ml (50 ml)	25 ml (100 ml)
RNase-free Water	6 ml	30 ml	6 ml, 30 ml	30 ml x 2
Carrier RNA <sup>4</sup>	1 mg (Add RNase-free Water)	1 mg (1 ml)	1 mg (1 ml)	1 mg (1 ml)
Column Extension Tube	2 pcs	25 pcs	50 pcs	100 pcs
CF Column	2 pcs	25 pcs	50 pcs	100 pcs
2 ml Collection Tube	2 pcs	25 pcs	50 pcs	100 pcs





## DNA/RNA/Protein Extraction Kit IBI Scientific®

### Advantages

Sample: cultured animal cells (up to 5 x 10<sup>6</sup>), up to 25 mg of tissue, up to 500 µl of whole human blood, up to 200 µl of biological liquids (serum, plasma)

Yield: up to 9 µg of genomic DNA, 20 µg of total RNA, 120 µg of protein from 1.5 x 10<sup>6</sup> HeLa cells

Format: genomic DNA spin column and total RNA spin column

Operation Time: DNA/RNA purification within 25 minutes, protein precipitation within 50 minutes

Elution Volume: 50-200 µl (genomic DNA) / 25-50 µl (total RNA)

Kit Storage: dry at room temperature (15-25°C)

The DNA/RNA/Protein Extraction Kit provides an efficient method for purifying genomic DNA, total RNA and total protein simultaneously from a variety of samples (cultured cells, animal tissue, whole blood and biological liquids). Chaotropic salt is used to lyse cells and inactivate Dnases and RNases, allowing DNA to bind to the genomic DNA spin column. The flow-through can then be transferred to the RNA spin column for RNA binding.

The proteins in the flow-through can then be precipitated using acetone. Contaminants are effectively removed using wash buffers followed by pure genomic DNA elution in a low salt buffer and pure total RNA elution in RNase-free Water. DNA/RNA purification can be completed in 25 minutes without phenol/chloroform extraction or alcohol precipitation and protein purification can be completed in 50 minutes.

The purified DNA, with approximately 20-30 Kb, is suitable for use in PCR or other enzymatic reactions and the purified RNA (including miRNA) is ready for use in RT-PCR, Real-time PCR, northern blotting, primer extension, mRNA selection and cDNA synthesis. The purified proteins can be directly analyzed on a SDS-PAGE and subsequent western blot.

### Quality Control

The quality of the DNA/RNA/Protein Extraction Kit is tested on a lot-to-lot basis by isolating genomic DNA, total RNA and protein from cultured animal cells. The purified DNA and total RNA is quantified with a spectrophotometer and analyzed by electrophoresis on a 1% agarose gel.

The purified protein is quantified by bradford assay and analyzed on SDS-PAGE.

### Ordering Information:

Catalog	Presentation
<b>IB47700</b>	4 Preps
<b>IB47701</b>	50 Preps
<b>IB47702</b>	100 Preps

### Components

Content	IB47700	IB47701	IB47702
RBC Lysis Buffer	10 ml	100 ml	200 ml
DR Buffer	2 ml	30 ml	60 ml
RW1 Buffer	2 ml	30 ml	50 ml
RPE Buffer <sup>1</sup> (Add Ethanol)	1 ml (4ml)	25 ml (100 ml)	50 ml (200 ml)
W1 Buffer	2 ml	45 ml	45 ml
Wash Buffer <sup>1</sup> (Add Ethanol)	1 ml (4ml)	12.5 ml ( 50 ml)	25 ml (100 ml)
RNase-free Water	1 ml	6 ml	6 ml
Elution Buffer	1 ml	30 ml	30 ml
DV Buffer (8M Urea)	500 µl	6 ml	12 ml
Protein Loading Dye	60 µl	2 ml	2 ml
RB Column	4	50	100
GD Column	4	50	100
2 ml Collection Tube	16	200	400





## RNAstabil

### Benefits

- Protects RNA in fresh tissue samples
- Allows sample handling at room temperature
- Field collection of samples without cold chain
- Flexible tissue collection and transport
- Reliable RNAseq data
- Rapid RNase inactivation
- Compatible with animal tissue, cultured cells, bacteria, yeast

RNAstabil is an aqueous, nontoxic tissue RNA stabilization and storage matrix that rapidly permeates tissues to stabilize and protect cellular RNA. Tissue samples can be harvested and submerged in RNAstabil for storage without jeopardizing the quality of RNA obtained following RNA isolation. RNA stabil can be used for RNA preservation with most tissues, cultured cells, bacteria, and yeast. The amount of RNAstabil used should be 5–10 times the volume of the sample. It will not be as effective in any sample that is difficult for the solution to permeate. RNAstabil solution has been tested with animal tissues, including brain, heart, kidney, spleen, liver, and lung. It is also effective for RNA preservation in white blood cells and some plant tissues as well.

- Provides the BEST RNA protection in tissue samples from 7 to 14 days at room temperature
- Stable RIN values for samples frozen at -20°C for years
- RIN values  $\geq 7$  in most tissues
- No rtPCR inhibition
- Reliable RNAseq data

Extracting RNA from fresh tissue samples is always preferred to frozen or FFPE tissue samples. However, maintaining RNA integrity from fresh tissue samples can be a challenge.

**Solutions such as RNAlater® have enabled fresh tissue samples to be utilized for transcriptome profiling, but these solutions do not always provide sufficiently high quality RNA.**

**IBI Scientific RNAstabil** effectively penetrates the tissue sample to better stabilize the RNA and yield RIN (RNA Integrity Number) values  $> 7$ .

### Specifications:

- Stabilizes RNA in fresh tissue samples for 7 to 14 days at room temperature, 15–25°C
- Suitable for protecting RNA from cell lines, whole blood, fresh tissue, and FFPE tissues.
- Compatible with all downstream RNA purification kits
- Tissue sample size should not exceed 0.5mm by 0.5mm by 0.5mm
- Typical RIN values will be  $\geq 7$  after 7 days at room temperature (15–25°C)

### For use with Cultured Cells




Pellet cells according to the protocols followed by your laboratory. Remove supernatant and then add 5–10 volumes RNAlater Solution. The cells can be washed in PBS before resuspending in RNAlater Solution, if desired.

### Ordering Information:

Catalog	Presentation
IB47306	125 ml
IB47307	250 ml
IB47308	500 ml

Catalog #	Description	Size
 <b>IB15720</b> <b>IB15721</b> <b>IB15724</b>	<b>ETHANOL (ANHYDROUS ALCOHOL), IBI SCIENTIFIC</b> CAS#: 64-17-5 <ul style="list-style-type: none"> <li>• 200 Proof Ethanol denatured with 5% methanol</li> <li>• Used for precipitating nucleic acids</li> </ul> Ethanol is widely used for precipitating nucleic acids. The nucleic precipitate, which is formed in the presence of moderate concentrations of monovalent cations, is recovered by centrifugation and redissolved in an appropriate buffer at the desired concentration. 200 Proof Ethanol is denatured with methyl alcohol. Ethanol is also known as ethyl alcohol, alcohol anhydrous, denatured alcohol.	500 ml 1 L 4 L
 <b>IB15727</b>	<b>ETHANOL 70% (ANHYDROUS ALCOHOL) IBI SCIENTIFIC</b> <ul style="list-style-type: none"> <li>• Used as an excellent cleaning reagent</li> </ul> 70% Ethanol is an effective cleaning agent that kills microbes, denatures proteins, and dissolves lipids. Ethanol is also known as ethyl alcohol, alcohol anhydrous, denatured alcohol. <b>SPECIFICATIONS:</b> <b>Specific Gravity:</b> 0.8800 Max.   <b>Ethanol:</b> 95%   <b>Methanol:</b> 5%   <b>Water Content:</b> 28 – 32% <b>Molecular Biology Specifications:</b> <b>DNase Assay:</b> None Detected   <b>RNase Assay:</b> None Detected	10 L
<b>IB05080</b>	<b>GUANIDINE HCL, IBI SCIENTIFIC</b> Model Number IB05080 CAS# 50-01-1 <ul style="list-style-type: none"> <li>• Ionic detergent that denatures most proteins and used to isolate RNA</li> </ul> Guanidine HCl is an ionic detergent that rapidly and effectively denatures most proteins. It is also used in the isolation of RNA.	500 g
<b>18-206</b>	<b>Guanidine Hydrochloride, Molecular/Proteomic Grade, Apex Biosearch Products</b> <ul style="list-style-type: none"> <li>• Carbamimidoylazanium Hydrochloride</li> <li>• Molecular/Proteomic Grade: Purity &gt; 99%</li> </ul>	500 g
<b>IB05100</b>	<b>GUANIDINE THIOCYANATE, IBI SCIENTIFIC</b> CAS#593-84-0 <ul style="list-style-type: none"> <li>• Used in the isolation of RNA</li> </ul> Guanidine thiocyanate is used in the isolation of RNA.	500 g
<b>18-207</b>	<b>Guanidine Thiocyanate, Molecular/Proteomic Grade, Apex Biosearch Products</b> <ul style="list-style-type: none"> <li>• Carbamimidoylazanium Thiocyanate</li> <li>• Purity &gt; 99%</li> </ul> Guanidine Thiocyanate (Guanidinium thiocyanate or guanidinium isothiocyanate), a powerful protein denaturant, is most often used to inactivate endogenous RNases in the isolation of RNA from various tissues and bacteria. When used with acid-equilibrated phenol or phenol:chloroform, a solution of Guanidine Thiocyanate and beta-mercaptoethanol are very effective in disrupting both cytoplasmic and nuclear membranes while maintaining the integrity of the RNA.	500 g
<b>IB15730</b> <b>IB15735</b>	<b>ISOPROPANOL, IBI SCIENTIFIC</b> CAS#: 67-63-0 <ul style="list-style-type: none"> <li>• Used for precipitation of nucleic acids</li> </ul> IBI's Isopropanol (isopropyl alcohol) is biotechnology grade for use in precipitating nucleic acids. The nucleic acid precipitate which is formed in the presence of moderate concentrations of monovalent cations, is recovered by centrifugation and redissolved in an appropriate buffer at the desired concentrations. Isopropanol is also known as isopropyl alcohol, IPA, and iso-propanol.	500 ml 1 L



Catalog #	Description	Size
 <b>IB72010</b>	<b>20X SSC BUFFER</b> <ul style="list-style-type: none"><li>• Buffer containing Sodium chloride and Sodium citrate</li></ul> SSC Buffer is a solution formulated for use in nucleic acid preparation and blotting applications, including northern blotting. SSC Buffer is used in concentrations ranging from 0.2X to 20X solutions depending on the application. <b>Physical Specifications</b> <b>CAS#:</b> N/A <b>Solution Components:</b> - 3.0 M Sodium Chloride   - 0.3 M Sodium Citrate <b>Conductivity (1X Solution):</b> 17,750 ± 2150 µmhos <b>pH (20X Solution @ 25°C):</b> 7.00 ± .15 <b>Refractive Index (20 X Solution):</b> 1.370 ± 0.010	1 L
 <b>IB72015</b>	<b>20X SSPE BUFFER</b> <ul style="list-style-type: none"><li>• Buffer containing Sodium chloride, Sodium phosphate, and EDTA</li></ul> IBI's 20 XSSPEBuffer is a solution formulated for use nucleic acid hybridization applications. The buffer is comprised of saline, sodium phosphate, and EDTA. <b>Physical Specifications:</b> <b>CAS#:</b> N/A   <b>pH (1 X Solution @ 25°C):</b> 7.25-7.55 <b>Solution Components:</b> 3.0 M Sodium Chloride   0.2 M Sodium Phosphate   0.02 M EDTA <b>Molecular Biology Specifications:</b> <b>DNase Assay:</b> None Detected   <b>RNase Assay:</b> None Detected <b>Recommended Use:</b> When reconstituted to a working concentration, the buffered solution is 0.15 M Sodium Chloride, 0.01 M Sodium Phosphate, and 0.001 M EDTA.	1 L
 <b>IB72000</b> <b>IB72001</b> <b>IB72002</b> <b>IB72003</b> <b>IB72004</b> <b>IB72005</b> <b>IB72006</b>	<b>TE BUFFER, IBI SCIENTIFIC</b> <ul style="list-style-type: none"><li>• Sterile   Endotoxin Free   pH - 8.0</li></ul> Tris EDTA, commonly known as TE Buffer, is synonymous with storage and solubilization of DNA, cDNA, and RNA. Though primarily a pH buffer, it is also a protective agent for the purified nucleic acids due to the presence of the chelating agent EDTA, which inactivates the nucleases. A pH of 7.5 recommended for RNA and a pH of 8 is most commonly used for DNA. Based on historic data that the nucleases are less effective at pH higher than 7.5 however, steam sterilization and ultra-filtration (0.01 micron) can further eliminate possibilities of remnant nucleases. Our certified nuclease free buffers are prepared and tested for nuclease activity. Each buffer is prepared using double distilled water, that is free of all divalent ions that tend to activate any nucleases, and is terminally sterilized using autoclavable packaging. Each bottle of TE buffer is steam sterilized that ensures heat inactivation and denaturation of all building blocks of life. The combination of ultra-filtration and terminal steam sterilization makes our product truly unique. Furthermore, IBI Scientific is the only manufacturer to provide a certified nuclease free and endotoxin free TE buffer. The endotoxin level in our TE is < 0.05eu/ml. This scrutiny in manufacturing provides the assurance to each customer that their precious nucleic acids (DNA and RNA) are safe from any degradation. <b>IBI TE buffer is packaged in medical grade non-leaching polycarbonate bottles to ensure purity levels and sterility are maintained.</b> <b>This TE Buffer is certified nuclease free and endotoxin free by way of LAL testing to &lt; 0.05 EU/ml.</b> <b>This TE buffer has a pH of 8.0 if your lab/process requires a different pH or an entirely different specialized buffer...Just ask us</b>	125 ml 12 x 125 ml 500 ml 6 x 500 ml 1 L 6 x 1 L 10 L



### Mini Total RNA Columns and Collection Tubes (RB) Replacement

**Sample:** up to 25mg of tissue, up to 300µl of whole human blood

up to  $5 \times 10^6$  of cultured mammalian cells,

up to  $1 \times 10^9$  of cultured bacterial cells,

up to 100mg of fresh plant tissue

**Yield:** 5-30µg

**Format:** spin column

**Operation time:** 30 minutes

**Elution volume:** 50µl

#### Ordering Information:

Catalog	Presentation
<b>IB47390</b>	20 Pack
<b>IB47391</b>	50 Pack
<b>IB47392</b>	100 Pack

IBI replacement MINI Total RNA Columns and Collection Tubes have been designed specifically for purifying Total RNA from blood, tissue, cultured cells, or plant samples. These columns can be used to utilize excess reagents from other RNA purification products that also use a lysis method. Protocols from the original complete kit (regardless of brand) may be used with these columns as well.

#### Quality Control

The quality of the IBI MINI Total RNA Columns and Collection Tubes are tested on a lot-to-lot basis by isolating total RNA from blood, cultured cells, tissue, and plant samples. The purified RNA is quantified with a spectrophotometer and checked by electrophoresis.



**ISOLATE DNA/RNA REAGENT KIT IBI SCIENTIFIC**

IB47600 4 ml | IB47601 100 ml | IB47602 200 ml

- Sample Size: Scalable for blood, buffy coat, serum, plasma cultured cells and tissue
- Operation time: up to 60 minutes
- Can simultaneously extract DNA – RNA and Protein from the same sample.

**Ordering Information:**

Catalog	Presentation
<b>IB47600</b>	4 Rml
<b>IB47601</b>	100 ml
<b>IB47602</b>	200 ml

IBI Isolate is a phenol, chloroform, and guanidine isothiocyanate based scalable solution for extracting high-quality total RNA as well as simultaneous extraction of RNA, DNA, and protein from a wide variety of samples such as blood, buffy coat, plasma, serum, cultured cells, and tissue. The extracted RNA, DNA and protein from a wide variety of samples such as blood, buffy coat, plasma, serum, cultured cells and tissue. The Real-Time PCR, Nuclease Protection Assays and Northern Blotting.

**Specifications:**

**Sample:** Adherent Cultured Cells, Suspension Cultured Cells, Body fluids including, Blood, Buffy Coat, Serum, and plasma.

**Format:** Phenol, chloroform, and guanidine isothiocyanate based scalable solution.

**Extract simultaneous RNA-DNA and protein from the same sample using phase separation.**

The extracted RNA can be used directly in a variety of downstream applications such as cDNA library construction, cloning, RT-PCR (Endpoint), real-time PCR, nuclease protection assays, and northern blotting.

**Quality Control**

IBI Isolate is tested on a lot-to-lot basis. RNA from a 1 ml human blood sample is extracted using IBI Isolate. 10 µl from a 50 µl eluate of RNA is analyzed by electrophoresis on a 0.8% agarose gel.

**Advantages**

- Extract total RNA or simultaneous RNA, DNA and protein within 1 hour
- Sample: up to 300 µl (blood, buffy coat, serum, plasma), up to 5 x 10<sup>6</sup> (cultured cells), 50-100 mg (tissue)
- Scalable
- Format: Phenol, chloroform and guanidine isothiocyanate

**Applications:**

cDNA Library Construction, Cloning, RT-PCR (Endpoint), Real-Time PCR, Nuclease Protection Assays and Northern Blotting

**This kit is also used for [Total RNA Blood Kits](#) | [Total RNA Cultured Cell Kits](#) | [Total RNA Tissue Kits](#)**



## Plant Isolate DNA Extraction Kit IBI Scientific®

### Advantages

- High molecular weight genomic DNA extraction from a variety of plant species
- Sample: up to 1 g of fresh plant tissue and up to 0.5 g of dry plant tissue
- Scalable, simple and gentle CTAB and chloroform based DNA precipitation method
- Cost effective

**Applications:** PCR, Real-Time PCR, Southern Blotting, Mapping and RFLP

### Ordering Information:

Catalog	Presentation
<b>IB47610</b>	4 ml
<b>IB47611</b>	100 ml
<b>IB47612</b>	200 ml

Operation Time: DNA/RNA purification within 25 minutes, protein precipitation within 50 minutes

Elution Volume: 50-200 µl (genomic DNA) / 25-50 µl (total RNA)

Kit Storage: dry at room temperature (15-25°C)

The DNA/RNA/Protein Extraction Kit provides an efficient method for purifying genomic DNA, total RNA and total protein simultaneously from a variety of samples (cultured cells, animal tissue, whole blood and biological liquids). Chaotropic salt is used to lyse cells and inactive Dnases and RNases, allowing DNA to bind to the genomic DNA spin column. The flow-through can then be transferred to the RNA spin column for RNA binding.

The proteins in the flow-through can then be precipitated using acetone. Contaminants are effectively removed using wash buffers followed by pure genomic DNA elution in a low salt buffer and pure total RNA elution in RNase-free Water. DNA/RNA purification can be completed in 25 minutes without phenol/chloroform extraction or alcohol precipitation and protein purification can be completed in 50 minutes.

IBI Plant Isolate provides a quick and easy 3

### Quality Control

The quality of the DNA/RNA/Protein Extraction Kit is tested on a lot-to-lot basis by isolating genomic DNA, total RNA and protein from cultured animal cells. The purified DNA and total RNA is quantified with a spectrophotometer and analyzed by electrophoresis on a 1% agarose gel.

The purified protein is quantified by bradford assay and analyzed on SDS-PAGE.

### COMPONENTS

Content	IB47700	IB47701	IB47702
RBC Lysis Buffer	10 ml	100 ml	200 ml
DR Buffer	2 ml	30 ml	60 ml
RW1 Buffer	2 ml	30 ml	50 ml
RPE Buffer1 (add Ethanol)	1 ml (4 ml)	25 ml (100 ml)	50 ml (200 ml)
W1 Buffer	2 ml	45 ml	45 ml
Wash Buffer1 (add Ethanol)	1 ml (4 ml)	12.5 (50 ml)	25 ml (100 ml)
Rnase-free Water	1 ml	6 ml	6 ml
Elution Buffer	1 ml	30 ml	30 ml
DV Buffer (8M Urea)	500 ul	6 ml	12 ml
Protein Loading Dye	60 ul	2 ml	2 ml
RB Column	4	50	100
GD Column	4	50	100
2 ml Collection Tube	16	200	400





### Tri-Isolate 96-Well Total RNA Pure Kit

- 2 x 96 well Isolate RNA kit, 4 x 96 well Isolate RNA kit or 10 x 96 well Isolate RNA kit.
- Vacuum or Centrifuge format
- Sample: Up to 2 x 10<sup>6</sup> cultured cells, 10 – 20 mg of animal tissue, up to 150 ul of body fluids, up to 1 x 10<sup>9</sup> bacteria cells, 10 – 20 mg of plant tissue.
- Binding Plates, Collection Plates and Deep well plates included.
- DNase 1 reagent kit and Bacteria Lysis reagent kit (Lysozyme) sold separately.

### Ordering Information:

Catalog	Presentation
IB47635	2 X 96 Well
IB47636	4 X 96 Well
IB47637	10 X 96 Well

The IBI Scientific Isolate 96-well Total RNA Purification kit is based on a phenol and guanidine isothiocyanate solution coupled with a 96-well binding plate system for high throughput purification of high-quality Total RNA from a variety of samples.

To begin, samples are homogenized in IBI Scientific Isolate reagent without chloroform phase separation or isopropanol RNA precipitation. Following sample homogenization simply bind, wash and elute the high-quality Total RNA in RNase Free water and use in a variety of sensitive downstream applications.

This system provides maximum Total RNA extraction from difficult samples high in polysaccharides and lipids. The binding plate and wash procedures ensure high purity of eluted RNA.

Process is completed in as little as 60 minutes.

**Applications:** Tissue, Blood, Adherent cultured cells, Suspension cultured cells, Plant tissue, Bacteria and other body fluids such as buffy coat, serum and plasma

**This kit is also used for Total RNA Tissue Kits**

COMPONENTS			
Component	IB47635	IB47636	IB47637
Isolate Reagent	100 ml	200 ml	250 ml x 2
Pre-Wash Buffer 1 (add Ethanol)	70 ml (30 ml)	70 ml x 2 (30 ml x 2)	175 ml x 2 (75 ml x 2)
Wash Buffer 2 (Add Ethanol)	50 ml x 2 (200 ml x 2)	50 ml x 4 (200 ml x 4)	50 ml x 10 (200 ml x 10)
Rnase-free Water	30 ml	15 ml x 1 30 ml x 1	30 ml x 3
Dnase I (2U/ul) 3	1 ml	1 ml x 2	1 ml x 5
Dnase I Reaction Buffer	5 ml x 2	15 ml x 2	15 ml x 4
RNA 96 Well Binding Plates	2	4	10
Microtubes (Racked)	2	2	2
Microtubes (8-strip)	12 x 2	12 x 6	12 x 18
Caps for Microtubes (8-Strip)	48	48 x 2	48 x 5
96 Deep Wel Plates 4	2	2	2
0.35 ml Collection Plates	2	4	10
Adhesive Film	2	4	10

1 2 Add absolute ethanol (see the bottle label for volume) to Pre-Wash Buffer and Wash Buffer then mix by shaking for a few seconds. Check the box on the bottle. Be sure and close the bottle tightly after each use to avoid ethanol evaporation.  
3 DNase I is shipped at room temperature and should be stored at -20°C for extended periods after receiving the kit.  
4 96 Deep Well Plates are reusable. After use, rinse the plate with water then incubate in 0.4M HCl for 1 minute at room temperature. Wash the plate thoroughly with ddH<sub>2</sub>O. The plate can be autoclaved after being washed.



### TRI-Isolate RNA Pure Kit

• **Sample Size:** up to  $5 \times 10^6$  cultured cells, 10 – 50 mg tissue, up to 200  $\mu$ l body fluids (blood, buffy coat, serum, plasma),  $1 \times 10^9$  bacterial cells, 20 – 50 mg plant tissue

• **Cost effective** phenol, guanidine isothiocyanate solution plus spin column system

• **No chloroform phase separation**

IBI Tri-Isolate is a phenol and guanidine isothiocyanate plus spin column system for convenient purification of high quality total RNA from a variety of samples including cultured cells, tissue, body fluids, bacteria, and plant tissue.

- **Format:** phenol, chloroform, guanidine isothiocyanate plus spin column system
- **Operation Time:** 15 minutes or less
- **Binding Capacity:** 50  $\mu$ g RNA from > 25  $\mu$ l DNase/RNase-free water
- **Elution Volume:** 25 – 50  $\mu$ l
- **High quality RNA:** A260/A280 > 1.8, A260/A230 > 1.8
- **Storage:** Room Temperature; Exception: DNase I & Lysozyme should be stored at -20°C upon arrival
- **Applications:** cDNA Library Construction, Cloning, RT-PCR (Endpoint), Real-Time PCR, Nuclease Protection Assays, Northern Blotting
- No isopropanol RNA precipitation
- No phenol carryover
- **High quality RNA:** A260/A280 > 1.8, A260/A230 > 1.8

### Technical Information:

Initially, samples are homogenized in IBI Isolate Reagent without chloroform phase separation or isopropanol RNA precipitation. Following sample homogenization, simply bind, wash, and elute the high quality, total RNA in RNase-free water. The purified RNA can be used in a variety of downstream applications, including cDNA library construction, cloning, RT-PCR (End-point), Real-Time PCR, nuclease protection assays, northern blotting.

### Quality Control

IBI Tri-Isolate is tested on a lot-to-lot basis. 10  $\mu$ l from a 50  $\mu$ l eluate of purified RNA is analyzed by electrophoresis on a 0.8% agarose gel.

**Can frozen blood samples be used with the Tri-Isolate kit?** Yes. Place the frozen sample into a 1.5ml micro-centrifuge tube and add 3 volumes of Tri-Isolate reagent and allow the sample to thaw. Incubate an additional 5 minutes at room temp and proceed with rest of protocol.

### Ordering Information:

Catalog	Presentation
IB47630	4 Reactions
IB47631	100 Reactions
IB47632	200 Reactions

### This kit is also used in:

- **Total RNA Blood Kits**
- **Total RNA Cultured Cell Kits**
- **Total RNA Tissue Kits**



## miRNA Isolation Kit

- Sample Size: 100mg tissue/1×10<sup>6</sup>cultured cells
- Operation Time: 30min or less
- Elution Volume: 50µl

The miRNA Isolation Kits are designed for the purification of microRNA (miRNA) and other small cellular RNAs from tissue samples and cultured cells. Purification of miRNA allows research into significant biological pathways for gene regulation. The standard protocol for isolating total RNA and miRNA are not optimized for small RNA molecules, and therefore result in the loss of substantial amounts of miRNA and other small RNA. In addition, the removal of the predominantly larger RNAs is required for accurate analysis of miRNA expression by qPCR or microarray analysis. These kits are specifically designed for the purification of small RNA with minimal contamination from large RNA molecules or genomic DNA. The method employs a spin column with a silica-based filter matrix that binds RNA in the presence of a chaotropic salt. This method is based on the selective binding of RNA molecules of various sizes to the silica-based fiber matrix when different ethanol concentrations are present in the solvent.

## Comparable to: QIAGEN miRNeasy Mini Kit

**What is the binding capacity of the miRNA Isolation column?**The binding capacity is approximately 30 µg.

**Can replacement columns used for Total RNA also be used for miRNA?**No, there are subtle differences between the Total RNA columns and miRNA columns.

**Can the miRNA kit be used to isolate miRNA from urine?**Yes, these initial steps must be followed. 1. Transfer 10 ml of urine into a 15 ml centrifuge tube (RNase free) and centrifuge at 6,000 x g for 2 minutes. 2. Discard the supernatant; add 500 µl of RNase Free Water to the pellet and vortex for 5 seconds. 3. Transfer the sample into a 1.5 ml micro-centrifuge tube (RNase free). 4. Centrifuge at 6,000 x g for 2 minutes, and then discard the supernatant. Follow the miRNA Isolation kit protocol step 1 Lysis. Add 200 µl of Lysis Buffer into a 1.5 ml micro-centrifuge tube containing the cell pellet.

**What is the make up of the Lysis buffer?**The Lysis buffer for the miRNA isolation kit consists of Guanidinium Isothiocyanate and a detergent – sodium lauroyl sarcosinate.

**Does the Lysis buffer merely breakdown the cell membrane to access the miRNA or does it lyse the entire cell nucleus?**The Lysis buffer in the miRNA isolation kit will lyse the entire cell nucleus.

**What is the size of the purified RNA's from this miRNA kit?**Most of the RNA purified using the miRNA kit are less than 100 nt. Slightly larger RNA's can be also be purified by using a modified protocol.

### Ordering Information:

Catalog	Presentation
IB47370	4 Preps
IB47371	100 Preps

### SPECIFICATIONS

Format:	Spin Column
Binding Capacity:	50 µg
Sample Concentration:	100 mg of Tissue, up to 1 x 10 <sup>6</sup> Cultured cells
Sample Type:	Animal tissue, cells
Micropestle:	Yes
Typical Yield:	5-30 µg
Elution Volume:	50 µl
Operation Time:	<30 mins.





RNA PURE KIT

- Sample Size: 50 µg of total RNA
- Operation time: 10 minutes
- Recovery: Up to 80% of high quality RNA
- Elution Volume: 20 - 50 µl
- Compatibility: Purify RNA stored in RNase-free water, elution buffer or TE Buffer following extraction using IBI Isolate TRI-Reagent®, TRIzol®, RNazol® and QIAzol® etc.
- Applications: RT-PCR, Northern Blotting, Primer Extension, mRNA Selection, cDNA Synthesis, RNase Protection Assay
- Additional Requirements: 1.5 ml microcentrifuge tubes, absolute ethanol

Ordering Information:

Catalog	Presentation
IB47640	4 Reactions
IB47641	50 Reactions
IB47642	100 Reactions

The RNA Pure Kit uses a simple and efficient spin column procedure to purify Total RNA stored in RNase-free water, elution buffer or TE Buffer following extraction using acid-guanidinium-phenol-chloroform based methods such as TRIzol® Reagent and IBI Isolate. Contaminants such as RNases, DNA and residual phenol are effectively removed using a simple 4 step procedure. The high-quality, total RNA is eluted in RNase-free Water or TE (RNase-free) and is ready for use in a variety of sensitive downstream applications

Technical Information

The extracted RNA can be used directly in a variety of downstream applications such as RT-PCR, Northern Blotting, Primer Extension, mRNA Selection, cDNA Synthesis, RNase Protection Assay.

Quality Control

The RNA Pure Kit is tested on a lot-to-lot basis. Following RNA purification using the RNA Pure Kit, 10 µl from a 50 µl eluate of purified RNA is analyzed by electrophoresis on a 0.8% agarose gel.

Kit Contents

Item	Volume	Product	Shipping	Storage
RNA Pure Buffer	3 ml	PR004	room temperature	dry at room temperature
	30 ml	PR050		
	60 ml	PR100		
Wash Buffer <sup>1</sup> (Add Ethanol)	1 ml (4 ml)	PR004	room temperature	dry at room temperature
	12.5 ml (50 ml)	PR050		
	25 ml (100 ml)	PR100		
RNase-free Water	1 ml	PR004	room temperature	dry at room temperature
	6 ml	PR050		
	6 ml	PR100		
PR Columns	4 pcs	PR004	room temperature	dry at room temperature
	50 pcs	PR050		
	100 pcs	PR100		
2 ml Collection Tubes	4 pcs	PR004	room temperature	dry at room temperature
	50 pcs	PR050		
	100 pcs	PR100		





### IBI TransMedia Kit For Research Use Only

The IBI TransMedia Kit is designed for the stabilization, transportation, and inactivation of infectious samples suspected of containing viral and bacterial DNA/RNA. The IBI TransMedia Kit consists of a 6 mL storage tube with a cap (80mm L x 12.5 Dia) containing 1 mL of the stabilization solution.

These components are intended to:

- Inactivate virus and bacteria
- Lyse cells
- Lyse lipid membranes
- Denature proteins
- Inactivate enzymes
- Stabilize viral and bacterial DNA/RNA

#### Functions:

- Virus/bacteria killing
- Nucleases inactivation
- RNA stabilization
- Sample long term storage
- Room temperature transport
- Human cfDNA/cfRNA stabilization

#### Sample:

- Nasopharyngeal swabs
- Oropharyngeal swabs
- Sputum specimens

#### Technical Information:

##### Test 1:

*Staphylococcus aureus* (Gram-positive) were grown to 0.8 of OD600. A 10,000x dilution was made, the same amount of cells were placed in TransMedia and treated at room temperature for 1 hour and without treatment were plated on BAP plates and incubated for 48 hrs. The results showed that the *Staphylococcus aureus* cells can be completely killed by IBI TransMedia Kit.

##### Test 2:

*Escherichia coli* (Gram-negative) were grown to 0.8 of OD600. A 10,000x dilution was made, the same amount of cells were placed in TransMedia and treated at room temperature for 1 hour, and without treatment, were plated on LB plates and incubated for 18 hrs. The results showed that the *Escherichia coli* cells can be completely killed by IBI TransMedia Kit.

#### Virus Killing:

The MS2 phage (RNA, non-enveloped, icosahedral virus) with TransMedia treatment and without treatment were mixed with the cells and pour to a plate with a lawn of actively growing compatible bacteria. After overnight growth, the plaques can be visualized, quantitated, and then titer determined. The results showed that the MS2 phage can be completely killed by IBI TransMedia.

#### RNA Stability:

IBI TransMedia provides long-term storage of *E. coli* total RNA. It efficiently protects all RNA species (23S RNA, 16S RNA, mRNA, and 5S RNA/tRNA from nucleases attacking. Lane 1: Original RNA. Lane 2: RNA stored in the IBI TransMedia for 1 day at room temperature. Lane 3: RNA stored in the IBI TransMedia for 2 days at room temperature. Lane 4: RNA stored in the IBI TransMedia for 3 days at room temperature. Lane 5: RNA stored in the IBI TransMedia for 7 days at room temperature.

#### RNA Integrity:

RNA purified by IBI TransMedia showed high quality and excellent RNA integrity. *E. coli* cells were lysed and stored in IBI TransMedia for 7 days. RNA were purified. RNA species were separated on a 6% semi-denaturing PAGE. RNA species were cut out from the gel, purified, and were confirmed by Northern blot hybridization using P32-labeled oligo probes specific to various RNA species. Various RNA were also demonstrated by RT-PCR assays. These experiments demonstrate that various RNA species (23S, 16S, 6S, 5S, 4.5S, and 4S tRNA) can be protected from RNase attack in IBI TransMedia. Gel results also showed the RNA were kept in an excellent integrity.

#### Ordering Information:

Catalog	Presentation
IB47470	10 Preps (10x1 ml)
IB47471	100 Preps (100x1 ml)
IB47472	400 Preps (400x1 ml)

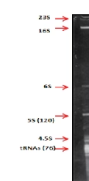
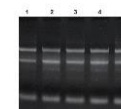
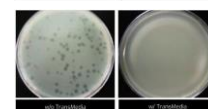
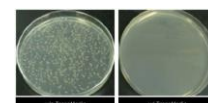
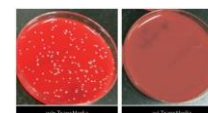
#### Safety Measures:

IBI TransMedia contains Guanidine salts can form highly reactive compounds and release cyanide gas when combined with bleach (sodium hypochlorite). If the split medium containing potentially infectious agents, clean the affected area first with laboratory detergent and water, and then with 1% (v/v) sodium hypochlorite. During the procedure, always wear a lab coat, disposable gloves, and protective goggles.

#### Compatible to spin column and magnetic bead nucleic acid purification kits.

Different copy numbers of nucleic acid from M13 DNA phage, MS2 RNA phage, long synthetic oligo DNA, HBV DNA virus, HCV RNA virus,

and human genomic DNA were spiked into IBI TransMedia. The nucleic acid were then purified from IBI TransMedia using spin column and magnetic beads format kits individually. The nucleic acid recovery were determined by qPCR or qRT-PCR. The results showed that high yield of nucleic acid can be recovered (70-100%) using spin column and magnetic beads kits from IBI TransMedia.



**rBAC Mini Total RNA Kit IBI Scientific®**

IB47420 4 Preps

IB47421 100 Preps

IB47422 400 Preps

- Sample Size: up to 1×10<sup>9</sup> gram (+) positive and gram (-) negative bacterial cells
- Expectant Yield: up to 60µg of RNA
- Operation Time: 30min or less
- Elution Volume: 50-100µl

**Ordering Information:**

Catalog	Presentation
<b>IB47420</b>	4 Preps
<b>IB47421</b>	100 Preps
<b>IB47422</b>	400 Preps

The rBAC Mini Total RNA Kits have been specifically designed and optimized for purifying Total RNA from gram positive and gram negative cultured bacterial cells. The gram-positive buffer, when combined with lysozyme, will efficiently lyse bacterial cell walls consisting of peptidoglycan. Detergents and chaotropic salt are then used to further lyse cells and inactivate RNase. Optional DNase treatments can be followed to remove unwanted DNA residue. RNA in the chaotropic salt is bound to the glass fiber matrix of the spin column. Contaminants are removed using a wash buffer and the purified RNA is eluted using RNase free water. The entire procedure can be completed in 30 minutes and the purified RNA is ready to use in RT-PCR, Northern Blotting, Primer Extension, mRNA Selection, and cDNA Synthesis. IBI Total RNA columns are individually packaged and certified RNase- and DNase-free

The quality of the rBAC Mini RNA Bacteria Kit is tested on a lot-to-lot basis by isolating RNA from *E. coli* (1×10<sup>9</sup>) culture (OD<sub>600</sub>=1.3, 1 ml) harvested by centrifugation at 16,000 x g for 1 minute. 10 µl from a 50 µl eluate of purified RNA is analyzed by electrophoresis on a 0.8% agarose gel

**COMPONENTS**

Content	IB47420	IB47421	IB47422
Bacteris Lysis Buffer	1.5 ml	30 ml	75 ml
Lysozyme1	8 mg	250 mg	610 ml
RB Buffer	2 ml	60 ml	130 ml
Dnase I2 (2U/ul)	20 ul	550 ul	550 ul x 3
Dnase I Reaction Buffer	200 ul	5 ml	15 ml
W1 Buffer	2 ml	50 ml	120 ml
Wash Buffer 3 (Add Ethanol)	1.5 ml (6 ml)	25 ml + 12.5 ml (100 ml) 50 ml)	50 ml x 2 (200 ml x 2 )
Rnase free Water	1 ml	15 ml	30 ml
RB Columns	4	100	300
2 ml Collection Tube	8	200	600

**Bacteria Lysis Kit IBI Scientific®**

- Tri-Isolate supplemental kit for extracting RNA from bacteria samples
  - Contains Lysozyme and Bacterial Lysis Buffer for initial lysing of the bacterial cell walls
- The Bacteria Lysis Kit is used with the IBI Tri-Isolate Kit when extracting RNA from bacteria samples. Bacterial cell walls are initially lysed by lysozyme, followed by the bacterial lysis buffer. The sample is then homogenized with the IBI Isolate reagent contained in the Tri-Isolate kit.

**Ordering Information:**

Catalog	Presentation
<b>IB47633</b>	100 Reactions
<b>IB47634</b>	200 Reractions





### Mini Total RNA Kit (Blood & Cultured Cells)

- Sample Size: 50-200µl whole human blood/up to 5×10<sup>6</sup> cultured mammalian cells/1×10<sup>9</sup> cultured bacterial cells
- Expectant Yield: up to 5-30µg
- Operation Time: 30min or less
- Elution Volume: 50µl



#### Ordering Information:

Catalog	Presentation
IB47320	4 Preps
IB47321	50 Preps
IB47322	100 Preps
IB47323	300 Preps

The Mini Total RNA Sample Kit for blood and cultured cells is specially designed for purification of total RNA from fresh whole human blood and cultured cells. This method uses detergents and a chaotropic salt to lyse cells and inactivate RNase. The RNA in the chaotropic salt is bound by the glass fiber matrix of the spin column. Once any contaminants have been removed following the wash step, the purified RNA is eluted by RNase-Free water. The entire procedure can be completed within 30 minutes. The purified RNA is ready for RT-PCR, Northern Blotting, Primer Extension, and cDNA library construction.

The quality of the Total RNA mini Kit for blood and cultured cells is tested on a lot-to-lot basis by isolating total RNA from blood and cultured cell samples. The purified RNA is quantified with a spectrophotometer and checked by electrophoresis.

#### Technical Information:

**Can the Total RNA replacement columns be used for miRNA application?** No, there are subtle differences between the Total RNA and miRNA columns.

**What is the minimum sample size of mammalian cells that can be run in the Total RNA Blood & Cultured cell kit?** 1 x 10<sup>5</sup> of cultured mammalian cells would be the minimum sample size. 5 x 10<sup>6</sup> is the maximum sample size for mammalian cells.

**This kit is also used for Total RNA Cultured Cell Kits**

- For use with leftover reagents from IBI Total RNA Kits or competitive products
- Sample Size: 25mg fresh tissue/300µl fresh blood/100mg fresh plant tissue

•Elution Volume: 50µl

•Binding Capacity: Up to 60µg

The Replacement Mini Total RNA Columns & Collection Tubes are for use with left over reagents from IBI Total RNA Kits including the following item numbers: IB47321, IB47322, IB47323, IB47301, IB47302, IB47341, and IB47342.

The columns and collection tubes can also be used with comparable, competitive RNA Isolation Kit reagents that utilize a lysis, bind, wash, elute method. However, you must observe the sample size, binding capacity, and elution volume for the replacement column stated in the specifications.

The replacement columns and collection tubes come mated and sterile in sealed packaging.

### Mini Total RNA Columns and Collection Tubes (RB) Replacement

#### Ordering Information:

Catalog	Presentation
IB47390	20 Pack
IB47391	50 Pack
IB47392	100 Pack



### Replacement RBC Lysis Buffer

- Lyses red blood cells for DNA and RNA extractions
- For use in IBI Genomic DNA Mini Kit (Blood & Cultured Cells) and IBI Total RNA Mini Kit (Blood & Cultured Cells)

The IB47620 is a 135ml bottle of RBC Lysis Buffer for use with the IBI Genomic DNA (Blood) Extraction Kits and the Total RNA (Blood) Extraction Kits. IBI RBC Lysis Buffer is used to lyse red blood cells in nucleic acid isolation applications.

Ordering Information:	
Catalog	Presentation
IB47620	135 ml
IB47621	200 ml
IB47622	500 ml





### Total RNA Miniprep Kit, Up to 100µg, Gene Choice®

- Total RNA isolation from mammalian cells ( $1 \times 10^7$ ) or tissues up to 30mg
- Purify total RNA >200nt in 25 minutes via centrifuge or vacuum protocols
- Homogenizer column for integrated sample homogenization and gDNA removal in one step
- Ultra-pure RNA ready for downstream applications such as RT-PCR, RT-qPCR, Northern Blotting, mRNA purification, etc.
- Simple and safe procedure free of phenol and chloroform via centrifuge or vacuum manifold protocols

The Gene Choice® Total RNA Miniprep Kit from Genesee Scientific recovers up to 100µg of total RNA (>200nt) in 25 minutes from up to 30mg of mammalian tissue or cultured cells up to  $1 \times 10^7$ . The kit features a simple procedure with an RNA homogenizer column that combines sample homogenization and gDNA elimination into one step. Skip the need for toxic reagents like phenol and chloroform and lengthy precipitations. Purified RNA is eluted into 40-70µl and is ready for downstream applications such as NGS, RT-qPCR, RT-PCR, Northern Blotting, mRNA purification, nuclease protection and in vitro translation.

DNase I set (cat # 96-107) is not included. Normally DNase I digestion is not required for RNA purified with the Gene Choice® Total RNA Isolation kit, as our silica-based spin column technology efficiently removes the majority of DNA without enzymatic digestion. However, certain sensitive RNA applications may require further DNA removal and the optional RNase-Free DNase I set is available for purchase separately.

The Gene Choice® Total RNA Miniprep kit provides a rapid and easy method for RNA isolation from a small amount of cultured eukaryotic cells or tissues. This kit allows single or simultaneous processing of multiple samples in less than 40 minutes. Normally,  $1 \times 10^7$  eukaryotic cells or 25-30 mg tissue can be used in a single experiment. There is no need for phenol/chloroform extractions, and time-consuming steps such as CsCl gradient ultracentrifugation, and precipitation with isopropanol or LiCl, are eliminated. RNA purified using the kit is ready for applications such as RT-PCR, RT-qPCR, Northern blotting, poly A+ RNA (mRNA) purification, nuclease protection, and in vitro translation.

The Gene Choice® Total RNA Miniprep kit uses the reversible binding properties of a silica-based material matrix. This is combined with the speed of mini-column spin technology. A specifically formulated high salt buffer system allows 100 µg RNA fragments greater than 200 bases to bind to the matrix. Cells or tissues are lysed under denaturing conditions that inactivates RNase. After the homogenization process by either bead milling or rotor-stator homogenizer, samples are transferred to an RNA Homogenizer Mini Column to remove genomic DNA, and the filtrate is transferred to a RNA Mini Column. After a few quick washing steps in which cellular debris and other contaminants are effectively washed away, high-quality RNA is eluted in Nuclease-free water.

#### Ordering Information:

Catalog	Description	Presentation
96-327	Total RNA Miniprep Kit, Up to 100µg, Gene Choice®	50 Preps
96-327B	Total RNA Miniprep Kit, Up to 100µg, Gene Choice®	200 Preps

#### Storage and Stability

All kit components are guaranteed for at least 12 months from the date of purchase when stored at room temperature. During shipment, crystals or precipitation may form in the RNA Lysis Buffer. Dissolve by warming buffer to 37°C.

#### Technical Specifications

Input	Cultured cells and tissues, fresh or frozen
Starting Amount	$1 \times 10^7$
Yield	Up to 100µg total RNA (>200nt)
Elution Volume	40 - 70µl
Processing Time	25 minutes
Processing Mode	Centrifugation or vacuum manifold
Downstream Applications	RT-PCR, RT-qPCR, Northern Blotting, mRNA purification, nuclease protection and in vitro translation



Mini Total RNA Kit (Plants)

- Sample Size: up to 100mg fresh plant tissue or up to 25mg dry plant tissue
- Operation Time: 30min or less
- Expected Yield: 5 – 30µg RNA from young leaf samples

Ordering Information:

Catalog	Presentation
IB47340	4 Preps
IB47341	50 Preps
IB47342	100 Preps
IB47343	300 Preps

2.2

Mini Total RNA Kit (Plants)

The Total RNA Mini Kit for Plants provides an efficient method for purifying total RNA from plant tissue and cells. Samples are ground in liquid nitrogen and then filtered to remove cell debris. In the presence of a binding buffer and chaotropic salt, total RNA in the lysate binds to the glass fiber matrix of the spin column. Optional DNase treatments can be followed to remove unwanted DNA residue. Once any contaminants have been removed using the Wash Buffer (containing ethanol), the purified total RNA is eluted by RNase-free water. The procedure does not require phenol extraction or alcohol precipitation and can be completed within one hour. The purified total RNA is ready for use in RT, RT-PCR, Real-time PCR, and northern blotting. The quality of the Total RNA Mini Kit for Plants is tested on a lot-to-lot basis by isolating total RNA from a 25 mg young leaf sample. The purified RNA is quantified with a spectrophotometer and checked by electrophoresis.

Specifications	Mini Total RNA Kit (Plants)
Format:	Spin Column
Binding Capacity:	50 µg
Sample Concentration:	100 mg of fresh plant tissue 25 mg of dry plant tissue
Sample Type:	Plant tissue
Filter Column:	Yes
Typical Yield:	5-30 µg
Elution Volume:	50 µl
Operation Time:	<20 mins.





### Mini Total RNA Kit (Tissue)

- Sample Size: up to 25mg tissue/up to 25mg paraffin-embedded tissue
- Operation Time: 15min or less
- Expected Yield: 5 – 30µg RNA
- Elution Volume: 25-100µl

#### Ordering Information:

Catalog	Presentation
IB47000	4 Preps
IB47301	50 Preps
IB47302	100 Preps
IB47303	300 Preps

The Total RNA Mini Kit for Tissue was designed specifically for purifying total RNA from a variety of animal and paraffin-embedded tissue. Tissue samples can be efficiently homogenized in a microcentrifuge tube using the provided micropestle. Detergents and chaotropic salt are used to lyse cells and inactivate RNase (optional in-column DNase treatments can be followed). RNA in the chaotropic salt is bound by the glass fiber matrix of the spin column. Once any contaminants have been removed, using the Wash Buffer (containing ethanol), the purified total RNA is eluted by RNase-free water. The procedure does not require phenol extraction or alcohol precipitation and can be completed within 15 minutes. The purified RNA is ready-for-use in RT-PCR, northern blotting, primer extension, and cDNA library construction.

The quality of the Total RNA Mini Kit for Tissue is tested on a lot-to-lot basis according to IBI's ISO-certified quality management system. Total RNA is isolated from a 25 mg animal tissue sample, quantified with a spectrophotometer, and analyzed by electrophoresis.

#### Technical Information:

**Can the Total RNA replacement columns be used for miRNA application?** No, there are subtle differences between the Total RNA and miRNA columns.

**Can the RNA Tissue Kit be used for insects?** Yes, the RNA Tissue Kits can be used for this process.

**Can the Total RNA Tissue kit be used for heart tissue?** It should be fine as long as the tissue is completely homogenized and is a fresh sample.

KIT CONTENTS				
Component	IB47300	IB47301	IB47302	IB47303
RB Buffer	2 ml	30 ml	60 ml	130 ml
Dnase I <sup>1</sup> (2U/ul)	20 ul	275 ul	550 ul	550 ul x 3
DNase I Reaction Buffer	200 ul	2.5 ml	5 ml	15 ml
W1 Buffer	2 mml	30 ml	50 ml	130 ml
Wash Buffer 2 (Add Ethanol)	1.5 ml (6 ml)	25 ml (100 ml)	25 ml + 12.5 ml (100ml) (50 ml)	50 ml x 2 (200 ml x 2 )
RNase-free Water	1 ml	6 ml	15 ml	30 ml
Filter Columns	4	50	100	300
RB Columns	4	50	100	300
2 ml Collection Tubes	8	100	200	600
Micropestles	4	50	100	300

<sup>1</sup> DNase I is shipped at room temperature and should be stored at -20°C for extended periods after receiving the kit.

<sup>2</sup> Add absolute ethanol (see the bottle label for volume) to Wash Buffer then mix by shaking for a few seconds. Check the box on the bottle. Be sure and close the bottle tightly after each use to avoid ethanol evaporation.



VIRAL NUCLEIC ACID EXTRACTION KIT,  
IBI SCIENTIFIC

- Sample Size: 200µl sample (plasma, serum, body fluid, or supernatant of viral infected cell cultures)
- Operation Time: 40min or less
- Elution Volume: 50µl

Ordering Information:	
Catalog	Presentation
IB47400	4 Preps
IB47401	50 Preps
IB47402	100 Preps
IB47403	300 Preps

2.2  
Viral Nucleic Acid  
Extraction Kit

The Viral Nucleic Acid Extraction Kit was designed specifically for purification of viral DNA/RNA from cell-free samples such as: serum, plasma, body fluids, and the supernatant of viral infected cell cultures (COVID-19). DNA/RNA viruses are lysed quickly and efficiently using the lysis buffer, which is a highly concentrated solution of chaotropic salt. When combined with ethanol, the AD Buffer creates an optimum condition for nucleic acid binding to the glass fiber of the column. Contaminants such as salts, metabolites, and soluble macromolecular cellular components are removed in the wash process. The nucleic acids are eluted in RNase-Free water and are then ready for use in subsequent reactions including Real-Time PCR, Automated Fluorescent DNA Sequencing, PCR, and other enzymatic reactions. The detection limit for certain viruses depends on the sensitivity of the individual PCR or RT-PCR assays. The quality of the Viral Nucleic Acid Extraction Kit is tested on a lot-to-lot basis by isolating viral DNA/RNA from a 200µl plasma sample.

Certificate of Analysis:

[https://cdn.shopify.com/s/files/1/1714/9939/files/CofA\\_IB47403 - Lot FH05110-DR.pdf?v=1622843285](https://cdn.shopify.com/s/files/1/1714/9939/files/CofA_IB47403_-_Lot_FH05110-DR.pdf?v=1622843285)  
[Viral Nucleic Acid Extraction Kit CofA - Lot#FG08501-G](#)

Technical Information:

**I can't see any RNA, but I do see DNA. Is this a problem with concentrations?** Remember to use RNase free centrifuge tubes, tips, and other tools, and always wear disposable gloves during all of the extraction processes. The low concentration samples can lead to not being able to see RNA on the gel. To check the result, you can perform the "Reverse Transcription PCR."

Component	IB47400	IB47401	IB47402	IB47303
VB Lysis Buffer	2 ml	30 ml	60 ml	130 ml
AD Buffer <sup>1</sup> (Add Ethanol)	0.5 ml (4 ml)	4 ml (30 ml)	8 ml (60 ml)	24 ml (180 ml)
W1 Buffer	2 ml	30 ml	50 ml	130 ml
Wash Buffer <sup>2</sup> (Add Ethanol)	1 ml (4 ml)	12.5 ml (50 ml)	25 ml (100 ml)	50 ml (200 ml)
RNase-free Water	1 ml	6 ml	6 ml	30 ml
VB Columns	4	50	100	300
2 ml Collection Tubes	8	100	200	600



Ordering Information:

Catalog	Presentation
<b>IB47407</b>	50 Tubes
<b>IB47408</b>	500 Tubes



**VIRAL STORAGE KIT**

- Sample Size: 200µl sample (plasma, serum, body fluid, or supernatant of viral infected cell cultures)
- Operation Time: 40min or less
- Elution Volume: 50µl

The small kit (IB47407) consists of 50 tubes containing a special solution that preserves the RNA in the Viral sample. The sample should be a swab or saliva.

The large kit (IB47408) consists of 500 tubes containing a special solution that preserves the RNA in the Viral sample. The sample should be a swab or saliva.





ViraMag DNA/RNA Extraction Kits

- Sample Size: 200µl sample of plasma, serum, body fluid (saliva), or supernatant of viral infected cell cultures)
- Format: Magnetic Beads
- Operation Time: 60 minutes
- Operation Method: Robotic Magnetic Bead Separation Instrument or manual method
- Elution Volume: 30µl - 100µl
- Sensitivity: as low as 10E1 copy of number of virus

Ordering Information:	
Catalog	Presentation
IB47460	4 Preps
IB47461	48 Peps
IB47462	96 Preps
IB47463	480 Preps

IBI X-Amp DNA Reagent is designed for efficient release of DNA for direct use in PCR reactions without purification. A wide variety of samples are effectively homogenized in the reagent without any pre-treatment or subsequent bind, wash or elution steps. Simply place the sample in the reagent, follow the 2-step protocol and transfer the lysate to a PCR mix, qPCR or multiplex PCR reaction. IBI X-Amp DNA Reagent is tested on a lot-to-lot basis according to IBI's ISO-certified quality management system. DNA from a 1 mg tissue sample is lysed in X-Amp DNA Reagent. A 5 µl aliquot of lysate is added directly into a 50 µl PCR mix.

IBI ViraMag Viral DNA/RNA Extraction kit was designed for high throughput purification of high-quality viral DNA or viral RNA from cell free samples such as serum, plasma, body fluids (saliva) and supernatant of viral infected cell cultures (COVID-19). Viral DNA/RNA is bound to the surface of the magnetic beads and released using a proprietary buffer system. The ViraMag Viral DNA/RNA kit can be easily adapted for use on automated magnetic bead separation instruments and work stations. The purified viral DNA/RNA can be used directly in a qPCR or RT-qPCR assay such as IBI UniPLUS RT-qPCR master mix (IB43150, IB43151 or IB43152).

Quality Control

The quality of Magnetic Beads Virus DNARNA Extraction Kit is tested on a lot-to-lot basis according to Geneaid's ISO-certified quality management system by isolating viral DNA/RNA from a 200 pl serum sample

Component	IB47460	IB47461	IB47462	IB47463
MV1 Buffer	2 ml	30 ml	60 ml	130 ml x2
W1 Buffer*	2ml	30 ml	50 ml	130 ml x2
Wash Buffer <sup>1</sup> (Add Ethanol)	1ml (4 ml)	12.5 ml (50 ml)	25 ml (100 ml)	50 ml x3 (200 ml)
RNase-free Water	2ml	15 ml	15 ml	60 ml
MV Magnetic Beads	50µl	500µl	1ml	5ml
Carrier RNA <sup>2</sup> (Add RNase-free water)	1mg (1ml)	1mg (1 ml)	1mg (1 ml)	1mg (1 ml)
96 Deep Well Plate	-	1pc	1pc	5 pcs
Adhesive Film	-	1pc	1pc	5 pcs

<sup>1</sup> Add absolute ethanol (see the bottle label for volume) to Wash Buffer then mix by shaking for a few seconds. Check the box on the bottle. Be sure and close the bottle tightly after each use to avoid ethanol evaporation.

<sup>2</sup> Add 1 ml of RNase-free Water to Carrier RNA then vortex to ensure Carrier RNA is completely dissolved to obtain a working solution of 1 µg/µl. Check the box on the bottle. Once it is dissolved completely, centrifuge for a few seconds to spin the mixture down. Divide the solution into convenient volumes in several RNase-free 1.5 ml microcentrifuge tubes. The Carrier RNA and RNase-free Water solution should be stored at -20°C. Do not freeze and thaw Carrier RNA solution more than 3 times.



Ordering Information:

Catalog	Presentation
IB47440	500 µl
IB47441	50 ml
IB47442	100 ml

## X-AMP DNA Reagent

- Use on a variety of samples: blood, tissue, plant, bacteria, fungus, virus, etc.
- 15 minute 2-step protocol
- Use DNA directly in PCR reactions
- DNA purification is not required

### Applications

Direct use of DNA in PCR reactions, multiplex PCR, Real-time PCR

### Quality Control

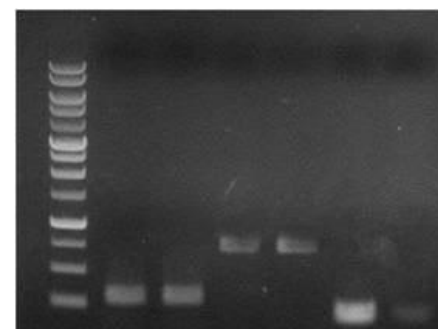
IBI X-Amp DNA Reagent is tested on a lot-to-lot basis according to IBI's ISO-certified quality management system. DNA from a 1 mg tissue sample is lysed in X-Amp DNA Reagent. A 5 µl aliquot of lysate is added directly into a 50 µl PCR mix

IBI X-Amp DNA Reagent is designed for efficient release of DNA for direct use in PCR reactions without purification. A wide variety of samples are effectively homogenized in the reagent without any pre-treatment or subsequent bind, wash or elution steps. Simply place the sample in the reagent, follow the 2-step protocol and transfer the lysate to a PCR mix, qPCR or multiplex PCR reaction. IBI X-Amp DNA Reagent is tested on a lot-to-lot basis according to IBI's ISO-certified quality management system. DNA from a 1 mg tissue sample is lysed in X-Amp DNA Reagent. A 5 µl aliquot of lysate is added directly into a 50 µl PCR mix.

### Technical Information:

#### Illustration below shows the following:

- Human blood samples were lysed in X-AMP DNA Reagent for 15 minutes at room temperature.
- Plant and bacteria samples were lysed for 15 minutes at 80°C.
- 2 µl aliquots of lysate were added to 20 µl PCR mixtures.
- Lane 1-2: partial human ACTB gene (250 bp) was amplified from 10 µl of human blood.
- Lane 3-4: partial Actin-2 gene (750 bp) was amplified from 20 mg of Arabidopsis thaliana leaves.
- Lane 5: partial 16S ribosomal gene (200 bp) was amplified from 2 µl of cultured Escherichia coli broth.
- Lane 6: partial 16S ribosomal gene (200 bp) was amplified from 2 µl of cultured Bacillus subtilis broth.



### X-Amp™ DNA PCR Reagent Protocol Procedure

#### Sample Procedure

**Tissue** 1. Transfer 50 µl of X-Amp DNA Reagent and 1 mg of tissue to a 1.5 ml microcentrifuge tube. | 2. Incubate for 15 minutes at room temperature or 5-15 minutes at 80°C. | 3. Mix by vortex then transfer a 2-5 µl aliquot to a 20-50 µl PCR mix.

**Plant Tissue** 1. Transfer 200 µl of X-Amp DNA Reagent and 5-25 mg of tissue to a 1.5 ml microcentrifuge tube. | 2. Incubate for 15 minutes at room temperature or 5-15 minutes at 80°C. | 3. Mix by vortex then transfer a 2-5 µl aliquot to a 20-50 µl PCR mix.

**Whole Blood, plasma, serum** 1. Transfer 100 µl of X-Amp DNA Reagent and 5-10 µl of fluid sample to a 1.5 ml microcentrifuge tube. | 2. Incubate for 15 minutes at room temperature. | 3. Mix by vortex then transfer a 2-5 µl aliquot to a 20-50 µl PCR mix.

**Saliva** 1. Transfer 100 µl of X-Amp DNA Reagent and 10 µl of saliva to a 1.5 ml microcentrifuge tube. | 2. Incubate for 15 minutes at room temperature or 10 minutes at 80°C. | 3. Mix by vortex then transfer a 2-5 µl aliquot to a 20-50 µl PCR mix



**RYEAST MINI TOTAL RNA KIT**

- Sample Size: up to  $5 \times 10^7$  fungus cells
- Expected Yield: up to 30µg of RNA
- Elution Volume: 50-100µl
- Operation Time: within 70 minutes

The rYeast Total RNA Mini Kit was designed for total RNA purification from yeast and a wide variety of other fungus species. Sorbitol Buffer is included with the kit to reduce sample preparation time and minimize hands on time. Detergents and chaotropic salt are used to lyse cells and inactivate RNase while

**Ordering Information:**

Catalog	Presentation
IB47410	4 Preps
IB47411	100 Preps
IB47412	300 Preps

RNA is bound by the glass fiber matrix of the RNA spin column. Once any contaminants have been removed, using the Wash Buffer (containing ethanol), the purified total RNA is eluted by RNase-free water. The entire procedure can be completed within 70 minutes and the purified RNA is ready-for-use in RT-PCR, northern blotting, primer extension, mRNA selection, and cDNA synthesis.

The quality of the rYeast Total RNA Mini Kit is tested on a lot-to-lot basis by isolating RNA from *Saccharomyces cerevisiae* ( $5 \times 10^7$ ) harvested by centrifugation at 5,000 x g for 10 minutes. A 5 µl aliquot of purified RNA from a 50 µl eluate is analyzed by electrophoresis on a 0.8% agarose gel.

**Technical Information**

**Should I use the RYeast or Total RNA Plant Kit, when it comes to fungi samples?** RYeast will be a better option for fungi and includes orbital buffer for better extraction.

**Kit Contents**

Component	IB47410	IB47411	IB47412
Sorbitol Buffer	4.5 ml	90 ml	225 ml
RB Buffer	2 ml	60 ml	130 ml
DNase I1 (2U/µl)	20 µl	550 µl	550 µl x 3
DNase I Reaction Buffer	200 µl	5 ml	15 ml
W1 Buffer	2 ml	50 ml	130 ml
Wash Buffer2 (Add Ethanol)	1.5 ml (6 ml)	25 ml + 12.5 ml (100 ml) (50 ml)	50 ml x 2 (200 ml) x 2
RNase-free Water	1 ml	15 ml	30 ml
RB Columns	4	100	300
2 ml Collection Tubes	8	8	600

<sup>1</sup> DNase I is shipped at room temperature and stored at -20°C for extended periods after receiving the kit.

<sup>2</sup> Add absolute ethanol (see the bottle label for volume) to Wash Buffer then mix by shaking for a few seconds. Check the box on the bottle. Be sure and close the bottle tightly after each use to avoid ethanol evaporation.





# PROMETHEUS™ brand Protein Biology Products

**Protein Detection & Visualization**

**Blotting Membranes**

**BSA & Protein Ladder**

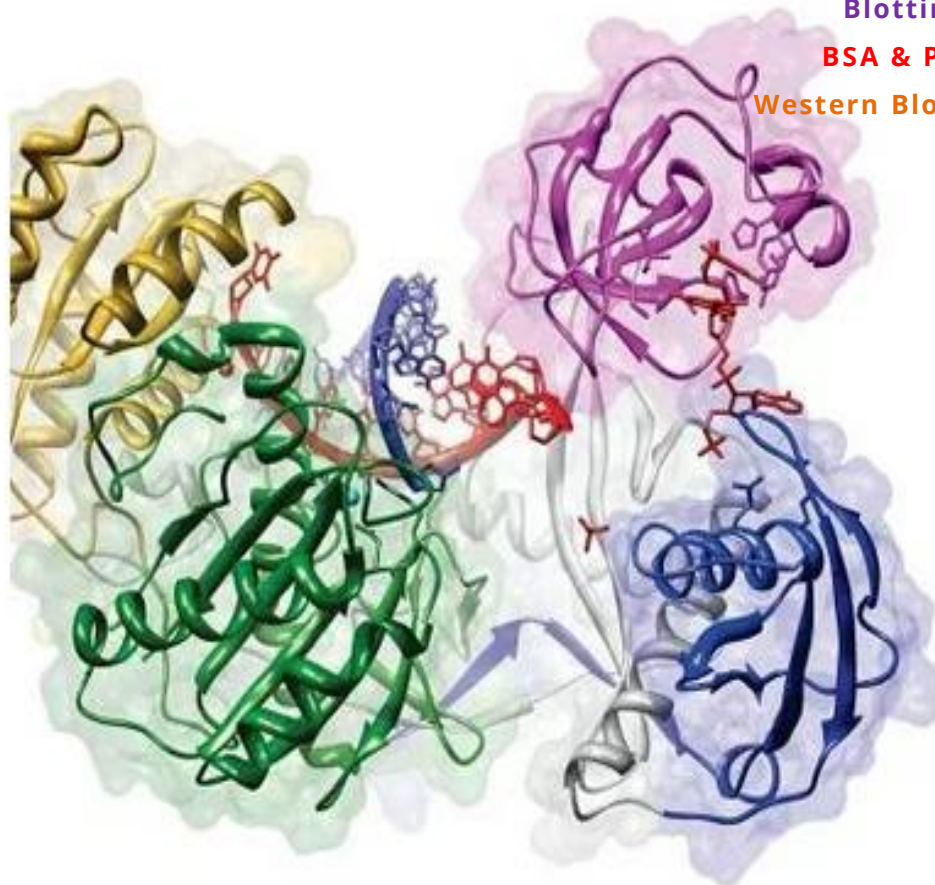
**Western Blocking Solution**

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**Page 154**

**Page 155**







### Ni-NTA Agarose Beads, Cross-linked Beads, 6%, Prometheus Protein Biology Products

- IMAC resin for 1 step purification of His-tagged proteins
- Offers more specific binding than Ni-IDA Agarose
- High capacity: >50mg protein per ml resin

- High performance nickel-IMAC resin for one step purification of His-tagged proteins
- Four metal-binding sites on the chelate enable high-protein binding and low-metal ion leaching
- Allows for purification of proteins under native or denaturing conditions
- Recover His-tagged proteins expressed in baculovirus, yeast, mammalian and bacterial cells
- Bead specifications: Spherical, ~50 - 150um
- Most common IMAC resin for working in reducing conditions

Prometheus™ Ni-NTA Agarose resin is a high-capacity, high-performance nickel-IMAC resin specifically designed for affinity purification of His-tagged (6XHis) fusion proteins. It can be used under native and denaturing conditions to recover His-tagged proteins from a variety of expression systems such as baculovirus, yeast, mammalian and bacterial cells. Prometheus™ Ni-NTA Agarose uses nitrilotriacetic acid (NTA - a tetradenate chelating ligand) in a cross-linked 6% agarose matrix and is loaded with divalent nickel ions (Ni<sup>2+</sup>). The resin provides exceptional binding capacity of >50mg/ml of resin and performance that equals or exceeds that of Ni-NTA resins from other suppliers. Ni-NTA resins are the most common choice for 6xHis-tag protein purifications by IMAC because of the four metal-binding sites on the chelate, which enable high-protein binding and low-metal ion leaching. The purity and yield of the target protein varies and is dependent on many factors including working conditions, size, conformation, expression levels, solubility and sample impurities.

#### Ordering Information:

Catalog	Description	Presentation
<b>20-512</b>	Ni-NTA Agarose Beads	25 ml
<b>20-513</b>		100 ml
<b>20-514</b>		500 ml

Replaces  
Nickel  
Sephacel™  
6 Fast Flow -



### Ni-NTA Magnetic Agarose Beads, Suspension, 5% Magnetic Resin, Prometheus Protein Biology Products

- High-capacity nickel-IMAC beads for rapid, small scale purification of His-tagged proteins
- Magnetic agarose derivatized with Nitrilotriacetic (NTA)
- Binding capacity: >75mg His-tagged protein/ml resin
- Supplied as a suspension in 20% Ethanol and 5% magnetic resin
- Allows for purification of proteins under native or denaturing conditions
- Bead specifications: Spherical, ~10 - 40um
- Ligand density: >20umol Ni<sup>2+</sup>/ml resin
- Each 1ml of slurry will contain 50% of magnetic beads

Prometheus™ Ni-NTA Magnetic Agarose beads are for fast and easy, small scale His-tagged protein purification using magnets. They provide superior affinity, very low nonspecific binding, and offer the highest binding capacity of >75 mg His-tagged protein/ml gel. Prometheus™ Ni-NTA Magnetic Agarose beads are ideal for purification from dilute solutions and for working with protein pulldowns (IP) and Chromatin IP (ChIP) using native or denaturing conditions.

#### Ordering Information:

Catalog	Description	Presentation
<b>20-512M2</b>	Ni-NTA Magnetic Agarose, 5% Suspension	5 ml
<b>20-512M3</b>		10 ml





### Glutathione Agarose 4, 4% Agarose Beads, Prometheus Protein Biology Products

- One-step, high-capacity affinity purification of recombinant GST-tagged proteins
- Compatible with both small and large protein complexes
- Static binding capacity: >8mg recombinant GST/ml gel
- Capacity will vary for each GST-tagged protein
- Simple protocol with no need for optimization
- Suitable for batch and column purifications
- Bead specifications: Spherical, ~50 - 150um
- Ligand: Glutathione, linked via sulphur atom

Glutathione Agarose Resin is used to purify recombinant derivatives of glutathione S-transferases or glutathione binding proteins. Resins are products that allow batch or column purifications. Purification of GST fusion proteins using Glutathione Resin provides an easy one step purification. This product is supplied as 75% (v/v) aqueous suspension (in 20% ethanol).

Ordering Information:		
Catalog	Description	Presentation
<b>20-542</b>	Glutathione Agarose 4	10 ml
<b>20-543</b>		100 ml

Replaces Glutathione  
Sephacel™ 4B  
Comparative  
of GE Healthcare Companies



### Ni-NTA Chromatography Cartridges, High Performance, 5 x 5ml/Unit Prometheus Protein Biology Products 20-512C5

- Designed for simple, high-resolution purification of histidine-tagged proteins by immobilized metal ion affinity chromatography (IMAC)
- Simple manual operation with a syringe, pump, or chromatography system such as MPLC, FPLC™ and AKTA™ design systems
- Packed with 5ml of high performance nickel resin with high binding capacity and low nickel ion leakage
- Reusable with no significant loss of binding capacity - ensures reliable capture of target protein in repeated IMAC purifications
- Easy changeover - no need to optimize or change protocol
- High binding capacity: > 50mg/ml resin (higher than competitive products)
- Recommended flow rate: 5ml/min
- Replaces HisTrap™ HP Columns (trademark of GE Healthcare Companies)

PROMETHEUS  
Protein Biology Products

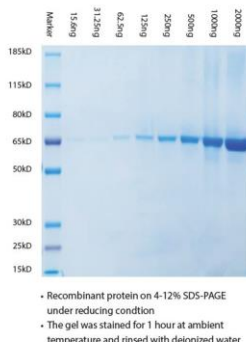


### Protein A/G Agarose Max Flow

- 50% Mixture of rProtein A and rProtein G Max Flow Agaroses
- Static binding capacity: ~25mg human IgG/ml resin
- Proteins A & G are immobilized by covalent binding to minimize protein loss and allow reuse
- Bead specifications: Spherical, ~50 - 150um
- Isolate mouse IgG1, IgG2a, IgG2b, IgG3 and IgA
- Isolate rat IgG1, IgG2a, IgG2b and IgG2c
- Isolate rabbit and goat polyclonal
- Isolate human IgG1, IgG2, IgG3 and IgG5

Prometheus™ Protein A/G Agarose Max Flow consists of a mixture of Protein A and Protein G covalently bound to highly crosslinked 4% agarose beads. It provides a very stable bond that can greatly minimize leakage of the proteins allowing for reuse of the affinity resin in several purification steps. The resin works well in high flow conditions.

Ordering Information:		
Catalog	Description	Presentation
<b>20-540</b>	Protein A/G Agarose Max Flow	1 ml
<b>20-541</b>		2 ml



### ProSignal® Instant Blue Protein Stain, SDS-PAGE Coomassie Gel Stain, 1L/Unit Prometheus Protein Biology Products 97-101

- Ready-to-use solution for staining of proteins in SDS-PAGE polyacrylamide gels
- Results visible within 5-10 minutes
- Sensitive to concentrations as low as 10ng - 30ng
- Avoid overstaining and only de-stain when needed
- Environmentally friendly - free of methanol and acetic acid
- Can be reused up to 3 times!
- No hazardous material is generated

ProSignal® Blue Protein Stain is a convenient, ready-to-use protein stain for SDS PAGE gels that compares to InstantBlue® Coomassie protein stain. This stain is environmentally friendly, free of methanol and acetic acid and does not generate any hazardous material. Protein can be visualized within five minutes of staining, and better visualization can be achieved in 30-60 minutes. Highly sensitive to concentrations as low as 10ng. Destaining is not required, and the product can be reused up to three times without obvious loss of sensitivity.

#### Ordering Information:

Catalog	Description	Presentation
97-101	ProSignal® Instant Blue Protein Stain, SDS-PAGE Coomassie Gel Stain	1 L



### ProSignal® Pico ECL Detection Reagent

- Optimized for chemiluminescent Western blots using digital or film-based imaging
- Detect low-picogram amounts
- Intense signal that lasts for flexible imaging 6-8 hours after substrate incubation
- **Replaces Pierce™ SuperSignal™ West Pico and Bio-Rad® Clarity™ Western ECL**
- No measuring or mixing required! Simply spray the blot and image
- Save time, and save money by reducing consumption of consumables such as tubes and pipette tips
- More sensitive than other substrates - detect low-picogram to high-femtogram amounts
- Optimized for dilute antibody concentrations - save antibody, save money
- Allows multiple exposures to be carried out without substantial signal decay
- Load less sample, use shorter exposure times, and use up to ten-times less antibody

#### Ordering Information:

Catalog	Description	Presentation
20-300	ProSignal Pico ECL Reagent, 200ml Kit	2000cm2
20-300B	ProSignal Pico ECL Reagent, 500ml Kit	5000cm2
20-300S	ProSignal Pico ECL Spray, 500ml Kit	5000cm2
20-300C	ProSignal Pico ECL Reagent, 1 L Kit	10,000cm2

Room  
Temperature  
Storage, 2  
Year Shelf Life



### ProSignal® Dura ECL Detection Reagent

- Takes full advantage of the linear dynamic range of CCD imagers
- Offers exceptional sensitivity - detect low femtogram amounts
- Intense signal for flexible imaging or re-imaging 10 hrs later to obtain the perfect exposure
- **Replaces Pierce SuperSignal™ West Dura and Amersham™ ECL™ Prime**

- The new standard for sensitivity and quantitative ability in Western blotting
- Optimized for CCD imaging and also provides high performance film detection
- Retains 70% of its initial signal strength after 60 min. incubation, while the competition decays to 5% or less
- Provides the largest dynamic range of any substrate for exceptional quantitative detection
- Extremely low background for broad useful linear dynamic range
- Does not exhibit substrate depletion at high protein loads

#### Ordering Information:

Amersham	Catalog	Description	Presentation
<b>RPN2232</b>	<b>20-301</b>	ProSignal Dura ECL Reagent, 100ml Kit	1000cm2
	<b>20-301B</b>	ProSignal Dura ECL Reagent, 200ml Kit	2000cm2
<b>RPN2236</b>	<b>84-834</b>	ProSignal Dura ECL Reagent, 300ml Kit	3000cm2



### ProSignal® Femto ECL Detection Reagent

- Detect low abundance proteins with femtomolar sensitivity on film or CCD
- Intense signal that lasts for flexible imaging 8+ hours later
- **Replaces Pierce SuperSignal™ West Femto**

- The most sensitive Prometheus™ ProSignal™ HRP substrate available
- Detect low abundance proteins with down to attomole sensitivity on film or CCD
- For chemiluminescent detection in Western blotting
- Intense signal that lasts for flexible imaging 8 hours after substrate incubation
- Low background for better band quantification than other products
- High signal-to-noise and a large dynamic range make it ideal for quantifying low-intensity bands

#### Ordering Information:

Catalog	Description	Presentation
<b>20-302</b>	ProSignal Femto ECL Reagent, 100ml Kit	1000cm2
<b>20-302B</b>	ProSignal Femto ECL Reagent, 200ml Kit	2000cm2


**ProSignal®  
Secondary  
Antibodies  
-  
1mg/ml**
**HRP-Conjugated  
Antibodies**

- Each antibody is affinity purified to maximize specificity
- Excellent signal in Western blotting and ELISA applications
- Recommended 1:20,000 starting dilution


**ProSignal® ECL Western Blotting Film**

- High Sensitivity and Ultra-High Contrast
- For Blotting and Sequencing Applications
- Light Clear Blue Base
- Suitable for 14C, 32P, 125I, 35S
- User Friendly Lift-Off Cover Lid


**Exceptional  
Clarity**
**Ordering Information:**

Catalog	Description	Total Antibody	Qty/Unit
<b>20-304D</b>	Donkey Anti-Mouse IgG (H L), HRP-Linked Whole Ab	(1mg/mL)	500ul
<b>20-303D</b>	Donkey Anti-Rabbit IgG (H L), HRP-Linked Whole Ab	(1mg/mL)	500 ul
<b>84-854</b>	Donkey anti-rabbit IgG-HRP	200ug in 1.0ml	1.0 ml
<b>20-306</b>	Goat Anti-Chicken IgY(IgG) (H L) HRP-Linked Ab	(1mg/mL)	500 ul
<b>20-308</b>	Goat Anti-Guinea Pig IgG(H L), HRP-Linked Whole Ab	(1mg/mL)	500 ul
<b>20-305</b>	Goat Anti-Human IgG (H L), HRP-Linked Whole Ab	(1mg/mL)	500ul/Unit
<b>20-304</b>	Goat anti-mouse IgG-HRP	500ug in 0.5ml	0.5 ml
<b>20-303</b>	Goat anti-rabbit IgG-HRP	500ug in 0.5ml	0.5 ml
<b>20-307</b>	Goat Anti-Rat IgG (H L), HRP-Linked Whole Ab	(1mg/mL)	500 ul
<b>84-848</b>	Sheep anti-mouse IgG-HRP	500ug in 1.0ml	1.0 ml

ProSignal ECL high contrast, high sensitivity X-ray film is specially formulated for an optimized balance of high sensitivity and low background. It is an excellent photographic film for use with enhanced chemiluminescence (ECL) substrates for horseradish peroxidase (HRP) or alkaline phosphatase (AP). In addition to excellent sensitivity and contrast characteristics, it is also coated on both sides (double emulsion) for improved consistency and overall performance. The autoradiography film also works well for chemiluminescent or isotopic DNA and RNA methods, including Southern and Northern blotting and gel-shift assays (EMSA). The quality and price of this film make it the smart choice for life science research applications.

Validated for use with ProSignal Pico, Dura, and Femto chemiluminescent substrates, the most advanced ECL reagents on the market (introduced in 2016) and other commercially available substrates. Packaged in lined, light-safe dispenser boxes that include an improved "lift off" cover.

**Ordering Information:**

Catalog	Description	Presentation
<b>30-507L</b>	ProSignal® ECL Blotting Film, 5" x 7" (13x18 cm) Double Emulsion	100 Sheets
<b>30-810L</b>	ProSignal® ECL Blotting Film, 8" x 10" (20.4 x 25.5 cm) Double Emulsion	100 Sheets



### ProSignal® ECL Marker Double-Sided, Fine/Thick

- A chemiluminescent marker with proprietary ink for writing on membranes
- Two tips - a fine point at one end and a thicker wedge tip at the other
- Permanently mark blots with the date or blot ID
- Transform any visible protein ladder standard into a chemiluminescent standard
- Compatible with both X-ray film and CCD imagers



Write or draw on transfer membranes with the ProSignal® ECL Marker. The reagent in the ECL Marker adsorbs to nitrocellulose/PVDF membranes, and reacts with HRP substrates to produce chemiluminescence that can be detected with X-ray film or CCD imaging. With the proprietary "ink" any visible protein markers can be transformed into chemiluminescent markers. The ProSignal® ECL Marker can also be used for annotating blots with a date or blot ID, or for checking the stability of your HRP substrate.

The ProSignal® ECL Marker has two tips, a fine tip at one end that is perfect for writing on the blot or tracing the bands of a visible protein standard, and a thicker wedge tip that can be used to deposit greater amounts of reagent on the blot. Marking the location of visible protein standards on a blot is easy: simply trace the visible markers on the membrane after transfer and before blocking.

Ordering Information:		
Catalog	Description	Presentation
20-335	ProSignal® ECL Marker, Double-sided, Fine/Thick	1 Pen/Unit

### ProSignal® Femto ECL Detection Reagent

- Detect low abundance proteins with femtomolar sensitivity on film or CCD
- Intense signal that lasts for flexible imaging 8+ hours later
- **Replaces Pierce SuperSignal™ West Femto**

- The most sensitive Prometheus™ ProSignal™ HRP substrate available
- Detect low abundance proteins with down to attomole sensitivity on film or CCD
- For chemiluminescent detection in Western blotting
- Intense signal that lasts for flexible imaging 8 hours after substrate incubation
- Low background for better band quantification than other products
- High signal-to-noise and a large dynamic range make it ideal for quantifying low-intensity bands

Ordering Information:			
Catalog	Description	Presentation	
20-302	ProSignal Femto ECL Reagent, 100ml Kit	1000cm2	
20-302B	ProSignal Femto ECL Reagent, 200ml Kit	2000cm2	



**Protein Stains**

- Fastest and easiest way to stain proteins
- For use with precast gels or other polyacrylamide protein gels

**Ordering Information:**

Catalog	Description	Presentation
<b>18-446</b>	Coomassie Brilliant Blue G-250 Protein Stain	1 L
<b>18-447</b>		1 Gal
<b>20-306</b>	<b>Ponceau Total Protein Stain</b> <ul style="list-style-type: none"> <li>• Quickly make sure that protein transfer has been even across the entire blot</li> <li>• Quick detection in 5 minutes or less</li> <li>• Reversible - only takes minutes to destain</li> <li>• After destaining, PVDF and NC membranes are ready for Western blotting</li> </ul>	500 ml

**BCA Protein Assay**

- Detergent compatible formulation based on bicinchoninic acid (BCA) for the colorimetric estimation of total proteins
- Water-soluble complex exhibits a strong absorbance at 562 nm that is nearly linear with increasing protein concentrations
- Offers less protein-to-protein variation than dye-binding methods

**Ordering Information:**

Catalog	Description	Presentation
<b>18-440</b>	BCA Protein Assay Kit	2,500 Assays
<b>18-441</b>		5,000 Assays
<b>18-444</b>	Micro BCA Protein Assay Kit w/o BSA Protein Standard	3,200 Micro-Assays
<b>18-445</b>	Micro BCA Protein Assay Kit	3,200 Micro-Assays

**Bradford Protein Assay**

- Highly optimized, simple protocol for protein measurements
- Colorimetric assay uses Coomassie G-250 to measure different polypeptides and proteins
- Uses bovine serum albumin as the standard

**Ordering Information:**

Catalog	Description	Presentation
<b>18-442</b>	Bradford Protein Assay Kit	2,500 Assays
<b>18-443</b>		5,000 Assays



## ProSignal® Blotting Membranes

Prometheus blotting membranes are the highest quality made in the U.S.A and Germany

2.3

Blotting Membranes

Ordering Information:		
Catalog	Description	Presentation
84-875	<b>NC Blotting Membrane, 0.2um Prometheus®</b> <ul style="list-style-type: none"> <li>Low background and excellent signal-to-noise ratios, without the need for stringent washing conditions.</li> <li>High binding capacity (150 – 176 µg IgG/cm<sup>2</sup>) of small proteins (&lt; Mr 20 000) reduces risk of "blow-through".</li> <li>Proprietary nitrocellulose formula gives a long shelf life of bound proteins.</li> </ul> <p>Nitrocellulose membrane, with a 0.2 µm pore size and high surface area, for binding of small proteins (&lt; Mr 20 000). 0.2um NC, a 100% pure nitrocellulose Western Blotting membrane (pore size 0.2um) with excellent sensitivity. Binding capacity 150-176 µg IgG/cm<sup>2</sup>. Offers excellent sensitivity, resolution, and low background, especially when used with ProSignal Pico, Dura, and Femto ECL detection reagents, exclusively available from Genesee Scientific</p>	300mm x 3m, 1 Roll
84-876	<b>NC Blotting Membrane, 0.45um Prometheus®</b> <ul style="list-style-type: none"> <li>Low background and excellent signal-to-noise ratios.</li> <li>Compatible with a variety of labeling and detection systems for chemiluminescent blotting</li> <li>High binding capacity (162 – 180 µg IgG/cm<sup>2</sup>).</li> <li>Suitable for proteins of a wide range of molecular weights.</li> <li>Proprietary nitrocellulose formula gives a long shelf life of bound proteins.</li> </ul> <p>0.45um NC, a 100% pure nitrocellulose Western Blotting membrane (pore size 0.45um) with excellent sensitivity. Binding capacity 115-125 µg IgG/cm<sup>2</sup>. Offers excellent sensitivity, resolution, and low background, especially when used with ProSignal Pico, Dura, and Femto ECL detection reagents, exclusively available from Genesee Scientific.</p>	300mm x 3m, 1 Roll
83-646R	<b>PVDF Blotting Membrane, 0.45um Prometheus®</b> <ul style="list-style-type: none"> <li>PVDF membrane optimized for Western blotting applications, immunoblotting, solid phase assays and plaque lifts.</li> <li>Higher mechanical strength than unsupported nitrocellulose with high protein binding capacity</li> <li>Chemically stable allowing the use of a range of commonly used stains</li> <li>Low backgrounds ensure the highest sensitivities across a broad range of molecular weights</li> <li>High sensitivity provides detection of low level proteins</li> <li>0.45 µm nominal pore size</li> </ul>	300mm x 3m, 1 Roll
84-895	<b>PVDF Blotting Membrane, 0.2um Prometheus®</b> <ul style="list-style-type: none"> <li>PVDF membrane optimized for Western blotting applications, immunoblotting, solid phase assays and plaque lifts.</li> <li>Higher mechanical strength than unsupported nitrocellulose with high protein binding capacity</li> <li>Chemically stable allowing the use of a range of commonly used stains</li> <li>Low backgrounds ensure the highest sensitivities across a broad range of molecular weights</li> <li>High sensitivity provides detection of low level proteins</li> <li>0.22 µm nominal pore size</li> </ul>	26.5cm x 3.3m, 1 Roll



### BSA Lyophilized Powder, Fraction V, Reagent Grade, >98% Purity, 100 g Prometheus Protein Biology Products 25-529

- BSA Fraction V, Reagent Grade, Fatty Acid-Free
- Purity >98%
- pH 7.0
- B1gG - None detected
- Complete QA release and testing
- Stable at ambient temperature during transit. For stability and optimal performance, this product should be stored at 2 to 8 C upon receipt

Bovine Serum Albumin (BSA) is used for various biochemical applications including ELISA (Enzyme-Linked Immunosorbent Assay), high content screening assays, western blotting, and immunohistochemistry. BSA as a blocking reagent is particularly useful with casein-sensitive antibodies, such as phospho-specific antibodies. Also used as a nutrient in cell and microbial culture. In restriction digests, BSA is used to stabilize some enzymes during digestion of DNA and to prevent adhesion of the enzyme to reaction tubes and other vessels. Bovine Serum Albumin can also be used to determine the quantity of other proteins, by comparing an unknown quantity of protein to known amounts of BSA.

#### Ordering Information:

Catalog	Description	Presentation
25-529	BSA Lyophilized Powder, Fraction V, Reagent Grade, >98% Purity	100 g



### ProSignal® Full-Range Prestained Protein Ladder, 3 Color, 10 to 250 kDa, 500ul/Unit Prometheus Protein Biology Products 83-660

- Three-color protein standard with 11 pre-stained proteins from 10 to 250 kDa visible on the gel and transfer membrane, not visible on film/imaged blot
- Clean and sharp bands with high membrane binding affinity
- Two reference bands (one green and one red at 25 kDa and 70 kDa respectively)
- Sufficient for 100 applications - load 5 ul
- Designed for monitoring separation during SDS-PAGE, verification of Western transfer efficiency on membranes and for approximating the size of protein
- Ships on ice and can be stored at -80°C for up to 2 years; aliquots can be stored at -20° for up to 1 year

Prometheus® ProSignal® Full-Range Prestained Protein Ladder is a three-color protein standard with 11 pre-stained proteins covering a wide range molecular weights from 10 to 250 kD. Proteins are covalently coupled with a blue chromophore except for two reference bands (one green and one red band at 25 kD and 70 kD respectively) when separated on 4-20% gradient gel.

The Prestained Protein Ladder is designed for monitoring protein separation during SDS-polyacrylamide gel electrophoresis, verification of Western transfer efficiency on membranes (PVDF, nylon, or nitrocellulose) and for approximating the size of proteins. The ladder is supplied in gel loading buffer and is ready to use.

#### Ordering Information:

Catalog	Description	Presentation
83-660	ProSignal® Full-Range Prestained Protein Ladder, 3 Color, 10 to 250 kDa	500 ul



## OneBlock™ Western Blocking Solution

### State-of-the-art blocking and signal enhancing solution for Western blots

Blocking is one of the most crucial steps in optimizing Western blotting, and yet it is often overlooked. Improve your reproducibility with OneBlock!

- Antibody-antigen signal enhancing blocking solution and antibody incubation solution for chemiluminescent Western Blots
- Enhanced the Western blot signal compared to non-fat dry milk with 20 common antibodies and different sample types
- Decreased background - Decreased non-specific bands and lowered background
- Sensitivity - Get better signals for low protein sample concentrations
- Convenience - Pre-made buffer means you save preparation and optimization time
- Provided as a convenient ready-to-use 1x solution intended to directly replace other commonly used blocking buffers
- Stable at 4°C for at least one year. Unopened bottles stable at room temperature for up to 6 months
- Block the membrane for one hour at ambient temperature with gentle agitation using a sufficient volume of buffer to completely cover the membrane

OneBlock™ Western-CL & Western-FL is a novel blocking solution, optimized to enhance specific antibody-antigen interactions for chemiluminescent Western Blots. This all-in-one blocking and antibody incubation solution is designed to improve sensitivity and decrease overall background. Non-specific binding caused by low quality antibodies is reduced while signal from the specific antibody-antigen complex is stabilized and enhanced. Provided as a convenient ready-to-use solution intended to directly replace other commonly used blocking buffers for Western Blotting.

No need to add sodium azide as OneBlock contains ProClin 300 to prevent microbial growth. In addition, sodium azide should be avoided as it inhibits HRP activity.

#### Ordering Information:

Catalog	Description	Presentation
20-313	OneBlock™ Western-CL Blocking Buffer, For Chemiluminescent Blots, Prometheus®	1000 ml
20-314	OneBlock™ Western-FL Blocking Buffer, For Fluorescent Blots, Prometheus®	1000 ml

#### Advantages of OneBlock™

- Improves reproducibility
- Eliminates optimizing: New antibody? No problem.
- Enhances antibody-antigen signal
- Decreases background
- Decreases non-specific binding
- Allows reuse of diluted antibodies
- Ready-to-use 1X solution

**NEPTUNE**  
Tools for Life Sciences

**Olympus**  
plastics  
A Genesee Scientific Brand

# Neptune & Olympus Plastics™ Brands Plastics

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1000µl Tips	Page 166
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**NEPTUNE** ofrece una selección completa de puntas de pipeta de alta calidad para todas las necesidades de su laboratorio. Hemos estado a la vanguardia de la innovación desde los inicios de nuestra empresa, siendo los primeros en llevar al mercado tecnologías que han revolucionado la forma en que se realiza el pipeteo. Algunas de nuestras últimas innovaciones incluyen nuestro embalaje ambientalmente sensible (ESP), que fue diseñado para minimizar el desperdicio de plástico hasta en un 90% mediante la recarga de bandejas vacías con cartuchos de puntas de recarga fáciles de cargar.

Nuestro polímero **S** fue diseñado para minimizar la pérdida de muestras en plásticos y proporcionar la entrega de muestras más precisa posible. Nuestro nuevo embalaje de la marca Neptune™, con su característica de dispensación única, utiliza hasta un 60 % menos de espacio de almacenamiento que el embalaje convencional, lo que libera un valioso espacio en la mesa de laboratorio.

Todas las puntas se fabrican bajo estrictos controles en nuestras instalaciones automatizadas con certificación ISO 9001:2000. Nuestro proceso de fabricación monitorea continuamente la calidad del producto mediante examen visual con aumento para detectar defectos, contaminación o daños en el proceso. Todos

nuestros productos envasados estériles se irradian con haz de electrones en un proceso controlado electrónicamente y se prueban mediante cultivos de 14 días para controlar las cargas biológicas bacterianas y fúngicas previas y posteriores a la irradiación.

Nuestro producto de alta calidad está disponible en versiones a granel, en rack (gradilla de 96 pozos), en gradilla estéril y punta con filtro (formato estéril con barrera de aerosol). Ofrecemos puntas estándar en tamaños que van desde 10 µl a 10 ml. Nuestra selección de puntas especiales incluye puntas de barrera para la prevención de la contaminación por aerosoles, puntas robóticas para sistemas robóticos automatizados de alto rendimiento y puntas de gel extralargas diseñadas específicamente para la carga de gel. Nuestra oferta de productos más reciente es BIOTIX nuestra punta LT ergonómica, disponible en volúmenes de 20 µl, 200 µl y 1000 ml, diseñada para usar con el sistema de pipeta Rainin® LTS™.

**NEPTUNE** es su fuente completa de puntas de pipeta. Por favor consulte nuestra tabla de selección para compatibilidad de pipetas específicas.

Tips

Get incredible space savings and reduce plastic waste with the complete Neptune packaging system.



High performance thin wall and precision molded of virgin



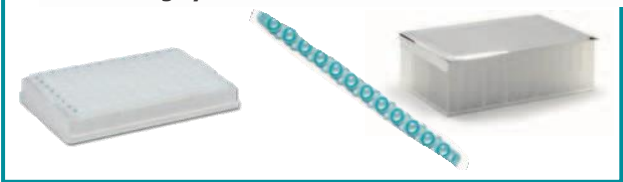
Tubes

Plates

A complete line of PCR and microtiter plates to fit all your needs



Neptune includes a wide range of versatile plate and tube sealing systems.



Seals

The key to the Neptune™ Molecular Grade Guarantee is the complete testing and certification program at our production facility.

Function	Tips	Our custom built robotic researcher probably doesn't pick up as many pipet tips a day as you do, but he does it with a precisely measured insertion force and then checks each tip for vacuum pressure loss. Constantly monitoring the function of Neptune™ tips so that you can be assured of reliable performance.
	Tubes	Tube samples are extensively centrifuge and boil tested to ensure they meet our standards.
	Plates	Neptune™ brand PCR and microtiter plate dimensions are checked against SBS specifications and vacuum tested on customized fixtures to ensure that each plate is flat and leak free.
Sterility	Process	Neptune™ sterile packaged products are electron beam irradiated in an electronically controlled process, and regularly tested by 14 day cultures to monitor pre and post irradiation bacterial and fungal bio-loads.
Molecular Purity	Inhibitors	Neptune™ products contain no significant levels of PCR inhibitors based on testing with both human and bacterial templates.
	Nucleic acids	PCR tested and certified to contain less than 5 x 10 <sup>-11</sup> µg of human or bacterial DNA.
	Nucleases	Tested and certified to contain less than 3.4 x 10 <sup>-11</sup> Kunitz units of RNase, and 1.7 x 10 <sup>-11</sup> Kunitz units of DNase.
	Endotoxins/Pyrogens	LAL coagulation testing demonstrates these products contain less than 0.06 EU/ml of endotoxins.



## Complete Selection

Neptune™ pipet tips are available in a wide selection of barrier and non-barrier styles, including many micro, gel and specialty tips.

**Barrier Tips** – See pg 88 thru 89

**Standard Tips** – See pg 94 thru 97

**LTS™ Style Tips** – See pg 98

**Robotic Tips** – See pg 102 thru 106

**esp™ Reloads** – See pg 90 thru 93



## Innovative Packaging

Most tips are available in several different packaging configurations including the all new Neptune™ Packaging System, for maximum space savings, waste reduction and user convenience.



## Store

All your tips, standard and filter, fit in the smallest amount of shelf space.



## Access

The exclusive Neptune™ dispenser box provides the easiest access to your tip trays.

## Identify

Always find the tip you want with the clear identification labels and color coded boxes. Every pack is clearly marked with the tip size and type.



## Reload

The new Neptune™ packaging system makes tray reloading with esp™ even easier than before.



## Save Space

Use up to 60% less storage space than conventional packaging.



## Less Waste

Reduce plastic waste by up to 52% over conventional packaging.






## S<sup>3</sup> Low Retention Polymer Technology for Total Sample Recovery. Exclusively from CLP!

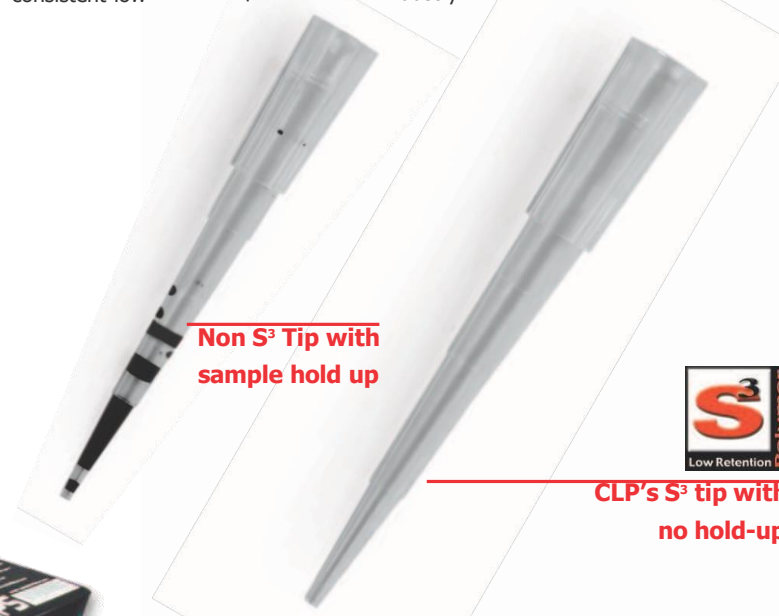
The trend in research toward ever smaller reaction volumes has many benefits, including improved reaction kinetics, more consistent results and lower overall costs. However, low volume techniques require dispensing very small volumes of reagents with a high degree of accuracy and consistency.

Pipet tips produced from standard polymers will variably retain biological solutions, preventing accurate and repeatable results. Diamond polishing of the mold reduces the number of imperfections producing a smoother surface. Silicone treatment of tips further reduces retention, but can leach out and interfere with reactions, or degrade at autoclaving temperatures.

CLP was the first company to address this challenge and develop a novel polymer technology that produces a Super Slick Surface S<sup>3</sup> on plastics. Traditionally, small occlusions and cavities within the molded plastic resulted in significant sample loss. Our third generation S<sup>3</sup> polymer system results in a microscopically uniform surface, which virtually eliminates sample hold up providing the most accurate sample delivery possible. CLP's S<sup>3</sup> polymer combined with our advanced production process produces the most consistent low retention plastics in the industry.

CLP's exclusive low retention polymer plastics are available throughout the Neptune™ brand product line. Look for this logo  to identify products incorporating the S<sup>3</sup> polymer.

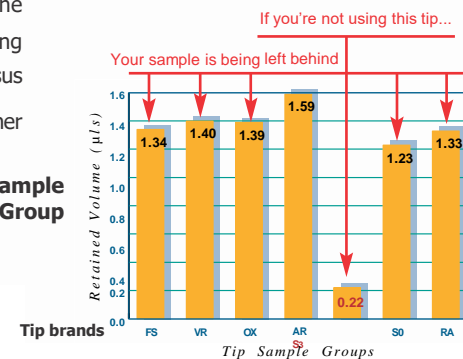
S<sup>3</sup> Polymer virtually eliminates sample hold-up, providing the most accurate sample delivery possible. S<sup>3</sup> technology is available only in Neptune™ brand products from CLP. CLP's advanced production process produces the most consistent low retention plastics in the industry.



### The Results

The new S<sup>3</sup> polymer was designed to increase pipetting accuracy by eliminating tip retention and sample holdup. S<sup>3</sup> pipet tips deliver within 0.1% of the indicated volume, versus 0.7% for standard tips. See the graph showing the results of S<sup>3</sup> tips versus other polymer tips from other brands.

### The Sample Group





**Neptune BT™ brand Barrier Tips**

Neptune™ brand barrier tips from CLP are tested and certified to conform to five bio-load specifications:

- No detectable nucleic acid contamination
- No detectable PCR inhibitors
- No detectable endonucleases
- No detectable endotoxin
- Pre-sterilized

**Certified**

- RNase
- DNase
- Pyrogen
- RNA/DNA
- Sterile


**Ordering Information:**

Catalog #	Description	Tip Type	Pack Quantity
<b>BT10</b> <b>63300746</b>	0.1 - 10 µl Filter Tip	<b>S3 Low Retention PP</b>	10 Trays of 96
<b>BT10.N</b> <b>63300747</b>	0.1 - 10 µl Filter Tip	Natural Polypropylene	10 Trays of 96
<b>BT10XLS3</b> <b>63300754</b>	0.5 - 10 µl Extended Length Filter Tip	<b>S3 Low Retention PP</b>	10 Trays of 96
<b>BT10XL</b> <b>63300753</b>	0.5 - 10 µl Extended Length Filter Tip	Natural Polypropylene	10 Trays of 96
<b>BT10E</b> <b>63300751</b>	0.5 - 10 µl Eppendorf™ Style Filter Tip	<b>S3 Low Retention PP</b>	10 Trays of 96
<b>BT10F</b> <b>63300752</b>	0.5 - 10 µl Finn™ Style Filter Tip	<b>S3 Low Retention PP</b>	10 Trays of 96





## Compatibility Barrier Tips 10 ul

Pipettor Compatibility	
Catalog #	
<b>BT10</b> <b>63300746</b>	Biohit Proline™ 10 µl   Brand Transferpette S™ 10 µl   Capp™ 10 µl   CLP Beta-Pette™ 2 µl and 10 µl   CLP Poseidon™ 2 µl and 10 µl   CLP Poseidon Electronic™ 20 µl   Eppendorf Reference™ 2.5 µl and 10 µl   Eppendorf Research™ 2.5 µl and 10 µl   Eppendorf Research Plus™ 2.5 µl and 10 µl   Eppendorf Xplorer™ 10 µl   Finnpiptette™ 10 µl and 50 µl   Finnpiptette™ Electronic 10 µl   Finnpiptette F1™ 10 µl   Gilson Pipetman™ P2 and P10   Hamilton™ 2 µl and 10 µl   Nichiryo Nichipet EX™ 10 µl   Nichiryo Oxford Benchmate™ 2 µl   Nichiryo Oxford Multimate™ 10 µl   Socorex Calibri 822™ 10 µl   VWR Ultra High Performance™ 2 µl and 10 µl
<b>BT10.N</b> <b>63300747</b>	
<b>BT10XLS3</b> <b>63300754</b>	Biohit Proline™ 10 µl   Brand Transferpette S™ 10 µl   Capp™ 10 µl   CLP Beta-Pette™ 2 µl and 10 µl   CLP Poseidon™ 2 µl and 10 µl   CLP Poseidon Electronic™ 20 µl   Eppendorf Reference™ 2.5 µl and 10 µl   Eppendorf Research™ 2.5 µl and 10 µl   Eppendorf Research Plus™ 2.5 µl and 10 µl   Eppendorf Xplorer™ 10 µl   Finnpiptette™ 10 µl and 50 µl   Finnpiptette™ Electronic 10 µl   Finnpiptette F1™ 10 µl   Gilson Pipetman™ P2 and P10   Hamilton™ 2 µl and 10 µl   Nichiryo Nichipet EX™ 10 µl   Nichiryo Oxford Benchmate™ 2 µl   Nichiryo Oxford Multimate™ 10 µl   Socorex Calibri 822™ 10 µl   VWR Ultra High Performance™ 2 µl and 10 µl
<b>BT10XL</b> <b>63300753</b>	
<b>BT10E</b> <b>63300751</b>	Biohit Proline™ 10 µl   Brand Transferpette S™ 10 µl   Capp™ 10 µl   CLP Beta-Pette™ 2 µl and 10 µl   CLP Poseidon™ 2 µl and 10 µl   CLP Poseidon Electronic™ 20 µl   Eppendorf® Reference™ 2.5 µl (works with 2040 series)   Eppendorf® Reference™ 10 µl   Eppendorf® Research™ 2.5 µl (works with 2040 series)   Eppendorf® Research™ 10 µl   Eppendorf® Research Plus™ 2.5 µl   (works with 2040 series)   Eppendorf® Research Plus™ 10 µl   Eppendorf® Xplorer™ 10 µl   Finnpiptette™ 10 µl and 50 µl   Finnpiptette™ Electronic 10 µl   Finnpiptette F1™ 10 µl   Gilson Pipetman™ P2 and P10   Hamilton™ 2 µl and 10 µl   Nichiryo Nichipet EX™ 10 µl   Nichiryo Oxford Benchmate™ 2 µl   Nichiryo Oxford Multimate™ 10 µl   Socorex Calibri 822™ 10 µl   VWR Ultra High Performance™ 2 µl and 10 µl
<b>BT10F</b> <b>63300752</b>	Biohit™ M100 and M200   Biohit Proline Plus™ 100 µl and 200 µl   Brand Transferpette S™ 20 µl, 100 µl and 200 µl   Brand Transferpette Electronic™ 300 µl   Capp™ 50 µl, 100 µl, and 300 µl   CLP Beta-Pette™ 20 µl, 100 µl and 200 µl   CLP Poseidon™ 50 µl, 100 µl, 200 µl and 300 µl   CLP Poseidon Electronic™ 200 µl   Eppendorf Reference™ 20 µl, 100 µl and 200 µl   Eppendorf Research™ 20 µl, 100 µl, 200 µl and 300 µl   Eppendorf Research Plus™ 20 µl and 100 µl   Eppendorf Xplorer™ 20 µl and 100 µl   Finnpiptette™ 20 µl, 50 µl, 200 µl and 300 µl   Finnpiptette™ Electronic 300 µl   Gilson Pipetman™ P20, P100 and P200   Gilson Pipetman Ultra™ U20 and U200   Hamilton™ 25 µl, 100 µl and 300 µl   Nichiryo Nichipet EX™ 20 µl, 100 µl and 200 µl   Nichiryo Oxford Benchmate™ 20 µl   Nichiryo Oxford Multimate™ 50 µl and 300 µl   Socorex Calibri 822™ 100 µl and 200 µl   VWR Ergonomic High Performance™ 20 µl and 200 µl   VWR Ultra High Performance™ 20 µl, 100 µl and 200 µl



## Neptune BT™ brand Barrier Tips

### Ordering Information:

Catalog #	Description	Tip Type	Pack Quantity
<b>BT20</b> <b>6330757</b>	<b>2-20 µl Filter Tip</b> Graduation marks are indicated at both 10 µl, 50 µl and 100 µl locations Refer to product image for visuals	<b>S3 Low Retention PP</b>	10 Trays of 96
<b>BT100</b> <b>6330748</b>	<b>10-100 µl Filter Tip</b> Graduation marks are indicated at both 10 µl, 50 µl and 100 µl locations Refer to product image for visuals	<b>S3 Low Retention PP</b>	10 Trays of 96
<b>BTXLT</b> <b>63300764</b>	<b>10-180 µl Filter Tip</b> Graduation marks are indicated at both 10 µl, 50 µl and 100 µl locations. Refer to product image for visuals	Natural Polypropylene	8 trays of 96
<b>BT200</b> <b>63300759</b>	<b>20-200 µl Filter Tip</b> Graduation marks are indicated at both 10 µl, 50 µl and 100 µl locations Refer to product image for visuals	<b>S3 Low Retention PP</b>	10 Trays of 96
<b>BT200XLT</b> <b>63300762</b>	<b>10-230 µl Filter Tip</b> Graduation marks are indicated at both 10 µl, 50 µl and 100 µl locations Refer to product image for visuals	Natural Polypropylene	8 trays of 96
<b>BT300</b> <b>63300763</b>	<b>20-300 µl Filter Tip</b> Graduation marks are indicated at both 0.5 µl, 2 µl and 10 µl locations Refer to product image for visuals	<b>S3 Low Retention PP</b>	10 Trays of 96
<b>BT1000.96</b> <b>63300749</b>	<b>100-1000 µl Filter Tip</b> Graduation marks are indicated at both 100 µl, 200 µl and 500 µl locations. Refer to product image for visuals	<b>S3 Low Retention PP</b>	8 trays of 96
<b>BT1000.96.N</b> <b>63300750</b>		Natural Polypropylene	8 trays of 96
<b>BT1250</b> <b>63300755</b>	<b>1000-1250 µl Extended Length Filter Tip</b> Graduation marks are indicated at both 200 µl, 500 µl and 1000 µl locations Refer to product image for visuals	<b>S3 Low Retention PP</b>	8 trays of 96
<b>BT1250.N</b> <b>63300756</b>		Natural Polypropylene	8 trays of 96

### Related Products



xPIPETTE Single Channel Adjustable Volume Pipettes  
**page 223**

## Compatibility Barrier Tips

## Pipettor Compatibility

## Catalog #

**BT20**  
**63300757**

Biohit™ M100 and M200 | Biohit Proline Plus™ 100 µl and 200 µl | Brand Transferpette S™ 20 µl, 100 µl and 200 µl | Brand Transferpette Electronic™ 300 µl | Capp™ 50 µl, 100 µl, and 300 µl | CLP Beta-Pette™ 20 µl, 100 µl and 200 µl | CLP Poseidon™ 50 µl, 100 µl, 200 µl and 300 µl | CLP Poseidon Electronic™ 200 µl | Eppendorf Reference™ 20 µl, 100 µl and 200 µl | Eppendorf Research™ 20 µl, 100 µl, 200 µl and 300 µl | Eppendorf Research Plus™ 20 µl and 100 µl | Eppendorf Xplorer™ 20 µl and 100 µl | FinnpiPETTE™ 20 µl, 50 µl, 200 µl and 300 µl | FinnpiPETTE™ Electronic 300 µl | Gilson Pipetman™ P20, P100 and P200 | Gilson Pipetman Ultra™ U20 and U200 | Hamilton™ 25 µl, 100 µl and 300 µl | Nichiryo Nichipet EX™ 20 µl, 100 µl and 200 µl | Nichiryo Oxford Benchmate™ 20 µl | Nichiryo Oxford Multimate™ 50 µl and 300 µl | Socorex Calibri 822™ 100 µl and 200 µl | VWR Ergonomic High Performance™ 20 µl and 200 µl | VWR Ultra High Performance™ 20 µl, 100 µl and 200 µl

**BT100**  
**63300748**

Biohit™ M100 and M200 | Biohit Proline Plus™ 200 µl | Brand Transferpette S™ 200 µl | Brand Transferpette Electronic™ 300 µl | Capp™ 50 µl, 100 µl and 300 µl | CLP Beta-Pette™ 200 µl | CLP Poseidon™ 50 µl, 100 µl, 200 µl and 300 µl | CLP Poseidon Electronic™ 200 µl | Eppendorf Reference™ 200 µl | Eppendorf Research™ 200 µl and 300 µl | Eppendorf Research Plus™ 200 µl | Eppendorf Xplorer™ 300 µl | FinnpiPETTE™ 50 µl, 200 µl and 300 µl | FinnpiPETTE™ Electronic 300 µl | Gilson Pipetman™ P200 | Gilson Pipetman Ultra™ U200 | Hamilton™ 25 µl, 100 µl and 300 µl | Nichiryo Nichipet EX™ 200 µl | Nichiryo Oxford Multimate™ 300 µl | Socorex Calibri 822™ 200 µl | VWR Ergonomic High Performance™ 200 µl | VWR Ultra High Performance™ 200 µl

**BTXLT**  
**63300764**

Biohit™ M100 and M200 | Biohit Proline Plus™ 100 µl (works with 2090 Series) | Biohit Proline Plus™ 200 µl | Brand Transferpette S™ 200 µl | Brand Transferpette Electronic™ 300 µl | Capp™ 50 µl, 100 µl and 300 µl | CLP Beta-Pette™ 200 µl | CLP Poseidon™ 50 µl, 100 µl, 200 µl and 300 µl | CLP Poseidon Electronic™ 200 µl | Eppendorf Reference™ 200 µl | Eppendorf Research™ 100 µl (works with 2090 Series) | Eppendorf Research™ 200 µl and 300 µl | Eppendorf Research Plus™ 200 µl | Eppendorf Xplorer™ 300 µl | FinnpiPETTE™ 50 µl, 200 µl and 300 µl | FinnpiPETTE™ Electronic 300 µl | Gilson Pipetman™ P200 | Gilson Pipetman Ultra™ U200 | Hamilton™ 25 µl, 100 µl and 300 µl | Nichiryo Nichipet EX™ 200 µl | Nichiryo Oxford Multimate™ 300 µl | Socorex Calibri 822™ 200 µl | VWR Ergonomic High Performance™ 20 µl | (works with 2090 Series) | VWR Ergonomic High Performance™ 200 µl | VWR Ultra High Performance™ 20 µl, 100 µl (works with 2090 Series) | VWR Ultra High Performance™ 200 µl

**BT200**  
**63300759**

Biohit™ M100 and M200 | Biohit Proline Plus™ 100 µl (works with 2090 Series) | Biohit Proline Plus™ 200 µl | Brand Transferpette S™ 200 µl | Brand Transferpette Electronic™ 300 µl | Capp™ 50 µl, 100 µl and 300 µl | CLP Beta-Pette™ 200 µl | CLP Poseidon™ 50 µl, 100 µl, 200 µl and 300 µl | CLP Poseidon Electronic™ 200 µl | Eppendorf Reference™ 200 µl | Eppendorf Research™ 100 µl (works with 2090 Series) | Eppendorf Research™ 200 µl and 300 µl | Eppendorf Research Plus™ 200 µl | Eppendorf Xplorer™ 300 µl | FinnpiPETTE™ 50 µl, 200 µl and 300 µl | FinnpiPETTE™ Electronic 300 µl | Gilson Pipetman™ P200 | Gilson Pipetman Ultra™ U200 | Hamilton™ 25 µl, 100 µl and 300 µl | Nichiryo Nichipet EX™ 200 µl | Nichiryo Oxford Multimate™ 300 µl | Socorex Calibri 822™ 200 µl | VWR Ergonomic High Performance™ 20 µl | (works with 2090 Series) | VWR Ergonomic High Performance™ 200 µl | VWR Ultra High Performance™ 20 µl, 100 µl (works with 2090 Series) | VWR Ultra High Performance™ 200 µl

**BT200XLT**  
**63300762**

Biohit™ M100 and M200 | Biohit Proline Plus™ 100 µl (works with 2090 Series) | Biohit Proline Plus™ 200 µl | Brand Transferpette S™ 200 µl | Brand Transferpette Electronic™ 300 µl | Capp™ 50 µl, 100 µl and 300 µl | CLP Beta-Pette™ 200 µl | CLP Poseidon™ 50 µl, 100 µl, 200 µl and 300 µl | CLP Poseidon Electronic™ 200 µl | Eppendorf Reference™ 200 µl | Eppendorf Research™ 100 µl (works with 2090 Series) | Eppendorf Research™ 200 µl and 300 µl | Eppendorf Research Plus™ 200 µl | Eppendorf Xplorer™ 300 µl | FinnpiPETTE™ 50 µl, 200 µl and 300 µl | FinnpiPETTE™ Electronic 300 µl | Gilson Pipetman™ P200 | Gilson Pipetman Ultra™ U200 | Hamilton™ 25 µl, 100 µl and 300 µl | Nichiryo Nichipet EX™ 200 µl | Nichiryo Oxford Multimate™ 300 µl | Socorex Calibri 822™ 200 µl | VWR Ergonomic High Performance™ 20 µl | (works with 2090 Series) | VWR Ergonomic High Performance™ 200 µl | VWR Ultra High Performance™ 20 µl, 100 µl (works with 2090 Series) | VWR Ultra High Performance™ 200 µl

**BT300**  
**63300763**

Biohit™ M100 and M200 | Biohit Proline Plus™ 100 µl (works with 2090 Series) | Biohit Proline Plus™ 200 µl | Brand Transferpette S™ 200 µl | Brand Transferpette Electronic™ 300 µl | Capp™ 50 µl, 100 µl and 300 µl | CLP Beta-Pette™ 200 µl | CLP Poseidon™ 50 µl, 100, 200 and 300 µl | CLP Poseidon Electronic™ 200 µl | Eppendorf Reference™ 200 µl | Eppendorf Research™ 100 µl (works with 2090 Series) | Eppendorf Research™ 200 µl and 300 µl | Eppendorf Research Plus™ 200 µl | Eppendorf Xplorer™ 300 µl | FinnpiPETTE™ 50 µl, 200 µl and 300 µl | FinnpiPETTE™ Electronic 300 µl | Gilson Pipetman™ P200 | Gilson Pipetman Ultra™ U200 | Hamilton™ 25 µl, 100 µl and 300 µl | Nichiryo Nichipet EX™ 200 µl | Nichiryo Oxford Multimate™ 300 µl | Socorex Calibri 822™ 200 µl | VWR Ergonomic High Performance™ 20 µl (works with 2090 Series) | VWR Ergonomic High Performance™ 200 µl | VWR Ultra High Performance™ 20 µl, 100 µl (works with 2090 Series) | VWR Ultra High Performance™ 200 µl

**BT1000.96**  
**63300749**

Biohit Proline™ 1000 µl | Brand Transferpette™ 1000 µl | CLP Beta-Pette™ 1000 µl | CLP Poseidon™ 1000 µl | CLP Poseidon Electronic™ 1000 µl | Eppendorf Reference™ 1000 µl | Eppendorf Research™ 1000µl | Eppendorf Research Plus™ 1000 µl | Eppendorf Xplorer™ 1000 µl | FinnpiPETTE™ 1000 µl and 1200 µl | Gilson Pipetman™ P1000 | Hamilton™ 1000 µl | Labnet BioPette E™ 1200 µl | Nichiryo Nichipet EX™ 1000 µl | Socorex Calibri 822™ 1000 µl | VWR Ergonomic High Performance™ 1000 µl | VWR Ultra High Performance™ 1000 µl

**BT1000.96.N**  
**63300750****BT1250**  
**63300755**

BT1250 and 2370 Series | Biohit Proline™ 1000 µl | Brand Transferpette™ 1000 µl | CLP Beta-Pette™ 1000 µl | CLP Poseidon™ 1000 µl | CLP Poseidon Electronic™ 1000 µl | Eppendorf Reference™ 1000 µl | Eppendorf Research™ 1000µl | Eppendorf Research Plus™ 1000 µl | Eppendorf Xplorer™ 1000 µl | FinnpiPETTE™ 1000 µl & 1200 µl | Gilson Pipetman™ P1000 | Hamilton™ 1000 µl | Labnet BioPette E™ 1200 µl | Nichiryo Nichipet EX™ 1000 µl | Socorex Calibri 822™ 1000 µl | VWR Ergonomic High Performance™ 1000 µl | VWR Ultra High Performance™ 1000 µl

**BT1250.N**  
**63300756**



5.0ml Barrier Pipet Tips Filtered, Racked, Sterile, Olympus Plastics

- Fits Gilson, Rainin, Eppendorf, Poseidon and other universal fit-style pipettors
- **Not compatible with Socorex, Accumax, Biohit and Finnpipette**
- High precision macro tips
- More accurate than serological pipettes when measuring large volumes of solution

Ordering Information:

Catalog #	Description	Tip Type	Pack Quantity
27-345F	5.0 ml Pipet Tips <b>Sterile</b>	Natural Polypropylene	10 rack of 50 Tips



3  
Tips  
5 ml

Related Products

For Dry Pack buffers

See Apex™ *page 86*



Filter Gel Tips 10 ul



Pipettor Compatibility		
Catalog #	Description	Pack Quantity
24-101A	<b>10µl Round Gel Tips, Filtered Racked, Sterile, Olympus Plastics</b> <ul style="list-style-type: none"><li>Compatible with most standard research laboratory pipettors</li><li>Low-binding resin reduces sample loss and enhances sample delivery</li><li>Racks feature a patented lid-lock design for easy, one-hand operation</li><li>Certified RNase, DNase, DNA, and PCR inhibitor-free</li><li>Round orifice</li><li>No graduation marks</li><li>51.82mm height</li><li>0.57mm outer thickness</li></ul>	2 Racks of 96 Tips/Unit
24-101B	<b>20µl Round Gel Tips, Filtered Racked, Sterile, Olympus Plastics</b> <ul style="list-style-type: none"><li>Compatible with most standard research laboratory pipettors</li><li>Low-binding resin reduces sample loss and enhances sample delivery</li><li>Racks feature a patented lid-lock design for easy, one-hand operation</li><li>Certified RNase, DNase, DNA, and PCR inhibitor-free</li><li>Round orifice</li><li>No graduation marks</li><li>68.46mm height</li><li>0.57mm outer thickness</li></ul>	2 Racks of 96 Tips/Unit
24-101C	<b>100µl Round Gel Tips, Filtered Racked, Sterile, Olympus Plastics</b> <ul style="list-style-type: none"><li>Compatible with most standard research laboratory pipettors</li><li>Low-binding resin reduces sample loss and enhances sample delivery</li><li>Racks feature a patented lid-lock design for easy, one-hand operation</li><li>Certified RNase, DNase, DNA, and PCR inhibitor-free</li><li>Round orifice</li><li>No graduation marks</li><li>68.46mm height</li><li>0.57mm outer diameter</li></ul>	2 Racks of 96 Tips/Unit





**New Improved esp™ Reload System!**  
 Increased tip stability for easier and faster reloading.



### esp™ System

**esp Environmentally Sensitive Packaging for Pipet Tips. Reuse your empty trays with the esp and BT-esp systems.**

The Neptune™ brand esp™ – “Environmental Sensitive Packaging” was designed to meet industry requests to minimize plastic waste by 60% and be environmentally friendly. This reduction in waste translates to a low cost alternative when compared with racked product and frees up valuable laboratory bench space with its smaller packaging.

CLP pioneered this innovative and unique transfer system that lets you reload your empty trays with new tips in a single movement. Our patented transfer card is designed to prevent contamination commonly associated with hand loading by minimizing the amount of handling when reloading empty tip racks. The esp™ system fits the widest range of tip

trays on the market, and is available in 10µl, 200µl, and 1000µl universal pipet tip reloads. We offer both sterile and non sterile formats, including our S<sup>3</sup> polymer tip engineered to minimize sample retention.

The barrier tip esp™ packaging system extends the esp™ advantage to our barrier tips. BT-esp™ transfer cards are supplied in low waste fully recyclable eco-trays and can be easily loaded into standard trays for use. Product is available in sterile barrier tip reload sizes of 10µl, 20µl, 100µl, 200µl and 1000µl for applications where cross contamination is of concern.

Help us reduce plastic waste - use CLP's esp™ system.

### Features:

- Reload up to 10 trays in 90 seconds
- S<sup>3</sup> low retention tips
- Less expensive and less waste
- Requires 80% less storage space
- Environmentally sound
- Allows you to reuse existing trays
- The ultimate in recycling
- Generates 90% less packaging waste
- Available for both non-filtered tips in 10µl, 20µl, 200µl, & 1000µl tips
- esp™ Patent# 5,234,482

# The **esp**™ System

environmentally sensitive packaging

## Standard esp™ for Non-Filtered Tips



**1.** Engage the alignment plate by firmly pressing down on the plate



**2.** Insert the tips into your empty tray



**3.** Secure plate by firmly pressing on all four corners of alignment plate



**4.** Firmly depress the release button using only your index finger

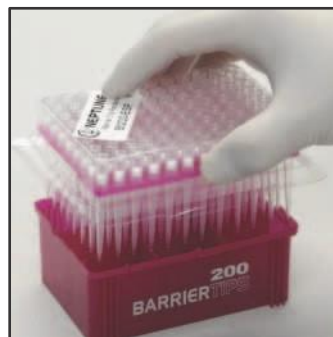
## BT-esp™ for Barrier Tips



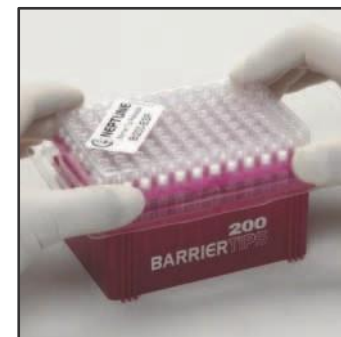
**1.** BT-esp™ reloads are individually packaged to preserve the integrity of the aerosol barrier



**2.** Remove alignment plate from the packaging base by gripping alignment plate using the upper portion of the clamshell packaging

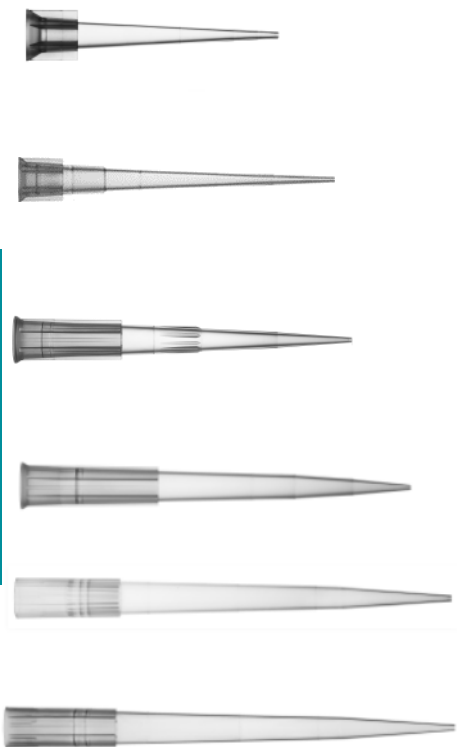


**3.** Insert the tips into your empty tray



**4.** Secure plate by firmly pressing on all four corners of alignment plate





Ordering Information:

Catalog #	Description	Tip Type	Pack Quantity
<b>2047</b> <b>63302159</b>	0.1-10 µl Universal Tip <b>ESP Reload</b>	<b>S3 Low Retention PP</b>	20 cards of 96/pk
<b>2047.N</b> <b>63300511</b>	0.1-10 µl Universal Tip <b>ESP Reload</b>	Natural Polypropylene	20 cards of 96/pk
<b>2347</b> <b>63302176</b>	0.5-10 µl Extended Length Pipette Tip <b>ESP Reload</b>	<b>S3 Low Retention PP</b>	10 cards of 96/pk
<b>2347.N</b> <b>63300560</b>	0.5-10 µl Extended Length Pipette Tip <b>ESP Reload</b>	Natural Polypropylene	10 cards of 96/pk
<b>2107</b> <b>63302166</b>	20-200 µl Universal Fit Graduated <b>ESP Reload</b>	<b>S3 Low Retention PP</b>	10 cards of 96/pk
<b>2107.N</b> <b>63300538</b>	20-200 µl Universal Fit Graduated <b>ESP Reload</b>	Natural Polypropylene	10 cards of 96/pk
<b>2097</b> <b>63302162</b>	20-300 µl Universal Fit Graduated <b>ESP Reload</b>	<b>S3 Low Retention PP</b>	10 cards of 96/pk
<b>2097.N</b> <b>63300523</b>	20-300 µl Universal Fit Graduated <b>ESP Reload</b>	Natural Polypropylene	10 cards of 96/pk
<b>2167.96</b> <b>63302170</b>	100-1000 µl Universal Tip Graduated <b>ESP Reload System</b>	Natural Polypropylene	10 cards of 96/pack
<b>2377</b> <b>63302179</b>	100-1250 µl Universal Tip Graduated <b>ESP Reload System</b>	<b>S3 Low Retention PP</b>	10 cards of 96/pack
<b>2377.N</b> <b>63300570</b>	100-1250 µl Universal Tip Graduated <b>ESP Reload System</b>	Natural Polypropylene	10 cards of 96/pack

Related Products

Galileo™ brand Electrophoresis

12-29



For Ethidium Bromide Products

see Mercury™ section, page



**Pipettor Compatibility:**

Biohit Proline™ 10 µl | Brand Transferpette S™ 10 µl | Capp™ 10 µl | CLP Beta-Pette™ 2 µl and 10 µl | CLP Poseidon™ 2 µl and 10 µl | CLP Poseidon Electronic™ 20 µl | Eppendorf Reference™ 2.5 µl (Works with 2040 series) | Eppendorf Reference™ 10 µl | Eppendorf Research™ 2.5 µl (Works with 2040 series) | Eppendorf Research™ 10 µl | Eppendorf Research Plus™ 2.5 µl (Works with 2040 series) | Eppendorf Research Plus™ 10 µl | Eppendorf Xplorer™ 10 µl | FinnpiPETTE™ 10 µl and 50 µl | FinnpiPETTE™ Electronic 10 µl | FinnpiPETTE F1™ 10 µl | Gilson Pipetman™ P2 and P10 | Hamilton™ 2 µl and 10 µl | Nichiryo Nichipet EX™ 10 µl | Nichiryo Oxford Benchmate™ 2 µl | Nichiryo Oxford Multimate™ 10 µl | Socorex Calibri 822™ 10 µl | VWR Ultra High Performance™ 2 µl and 10 µl

**Ordering Information:**

Catalog #	Description	Tip Type	Pack Quantity
<b>2040</b> <b>63302157</b>	0.1-10 µl Micro Pipette Tip	<b>S3 Low Retention PP</b>	1000 tips/bag
<b>2040.N</b> <b>63300504</b>	0.1-10 µl Micro Pipette Tip	Natural Polypropylene	1000 tips/bag
<b>2042</b> <b>63302158</b>	0.1-10 µl Micro Pipette Tip	<b>S3 Low Retention PP</b>	10 trays of 96/pack
<b>2042.S</b> <b>63300508</b>	0.1-10 µl Micro Pipette Tip Racked Pre-Sterile	<b>S3 Low Retention PP</b>	10 trays of 96/pack
<b>2042.N</b> <b>63300506</b>	0.1-10 µl Micro Pipette Tip Racked	Natural Polypropylene	10 trays of 96/pack
<b>2042.NS</b> <b>63300507</b>	0.1-10 µl Micro Pipette Tip Racked Pre-Sterile	Natural Polypropylene	10 trays of 96/pack
<b>2047</b> <b>63302159</b>	0.1-10 µl Micro Pipette Tip <b>ESP Reload System</b>	<b>S3 Low Retention PP</b>	20 cards of 96/pack
<b>2047.N</b> <b>63300511</b>	0.1-10 µl Micro Pipette Tip <b>ESP Reload System</b>	Natural Polypropylene	20 cards of 96/pack

**xPIPETTE Single Channel Adjustable Volume**  
**Pipettes** Page 223



**For a complete line of Galileo brand**  
**Electrophoresis**, see Pages 11-18



**For Ethidium Bromide Products**  
See Galileo Biosciences™, Page 88





2140 Series



2340 Series

Ordering Information:			
Catalog #	Description	Tip Type	Pack Quantity
2140 63302167	0.1-10 µl (35µl) Ultra Micro Pipette Tip	S3 Low Retention PP	1000 tips/bag
2142.S 63300544	0.1-10 µl (35µl) Ultra Micro Pipette Tip Racked Pre-Sterile	S3 Low Retention PP	10 trays of 96/pack
2340 63302171	0.5-10 µl Extended Length Pipette Tip	Natural Polypropylene	1000 tips/bag
2340S3 63300553	0.5-10 µl Extended Length Pipette Tip	S3 Low Retention PP	1000 tips/bag
2342 63302174	0.5-10 µl Extended Length Pipette Tip Racked	Natural Polypropylene	10 trays of 96/pack
2342S3 63300552	0.5-10 µl Extended Length Pipette Tip Racked	S3 Low Retention PP	10 trays of 96/pack
2342.S 63300555	0.5-10 µl Extended Length Pipette Tip Racked Pre-Sterile	Natural Polypropylene	10 trays of 96/pack
2342S3.S 63300558	0.5-10 µl Extended Length Pipette Tip Racked Pre-Sterile	S3 Low Retention PP	10 trays of 96/pack
2347 63302176	0.5-10 µl Extended Length Pipette Tip ESP Reload System	S3 Low Retention PP	20 cards of 96/pack
2347.N 63300560	0.5-10 µl Extended Length Pipette Tip ESP Reload System	Natural Polypropylene	20 cards of 96/pack

Related Products



Extra Long Reach Micro 10

Our XL Micro 10 tip reduces contamination risk with its extended length. The XL Micro 10 will REACH to the bottom of the 0.6ml tube without the pipettor barrel touching the tube sides. This tip features a 2µl and a 10µl graduation for your reference and is ideal for gel loading. [catalog # 2340](#)

Series	Pippettor Compatibility
2140	Biohit Proline™ 10 µl   Brand Transferpette S™ 10 µl   Capp™ 10 µl   CLP Beta-Pette™ 2 µl and 10 µl   CLP Poseidon™ 2 and 10 µl   CLP Poseidon Electronic™ 20 µl   Eppendorf® Reference™ 2.5 µl   (works with 2040 series)   Eppendorf® Reference™ 10 µl   Eppendorf® Research™ 2.5 µl (works with 2040 series)   Eppendorf® Research™ 10 µl   Eppendorf® Research Plus™ 2.5 µl (works with 2040 series)   Eppendorf® Research Plus™ 10 µl   Eppendorf® Xplorer™ 10 µl   Finnpiquette™ 10 and 50 µl   Finnpiquette™ Electronic 10 µl   Finnpiquette F1™ 10 µl   Gilson Pipetman™ P2 and P10   Hamilton™ 2 and 10 µl   Nichiryo Nichipet EX™ 10 µl   Nichiryo Oxford Benchmate™ 2 µl   Nichiryo Oxford Multimate™ 10 µl   Socorex Calibri 822™ 10 µl   VWR Ultra High Performance™ 2 and 10 µl
2340	Biohit Proline™ 10 µl   Brand Transferpette S™ 10 µl   Capp™ 10 µl   CLP Beta-Pette™ 2 µl and 10 µl   CLP Poseidon™ 2 µl and 10 µl   CLP Poseidon Electronic™ 20 µl   Eppendorf Reference™ 2.5 µl and 10 µl   Eppendorf Research™ 2.5 µl and 10 µl   Eppendorf Research Plus™ 2.5 µl and 10 µl   Eppendorf Xplorer™ 10 µl   Finnpiquette™ 10 µl and 50 µl   Finnpiquette™ Electronic 10 µl   Finnpiquette F1™ 10 µl   Gilson Pipetman™ P2 and P10   Hamilton™ 2 µl and 10 µl   Nichiryo Nichipet EX™ 10 µl   Nichiryo Oxford Benchmate™ 2 µl   Nichiryo Oxford Multimate™ 10 µl   Socorex Calibri 822™ 10 µl   VWR Ultra High Performance™ 2 µl and 10 µl





### Graduated Tips 200µl

#### Ordering Information:

- Graduation marks are indicated at both 10, 50 and 100 µl locations Refer to product image for visuals
- Autoclavable at 120°C for 10-15 minutes at 15 PSI

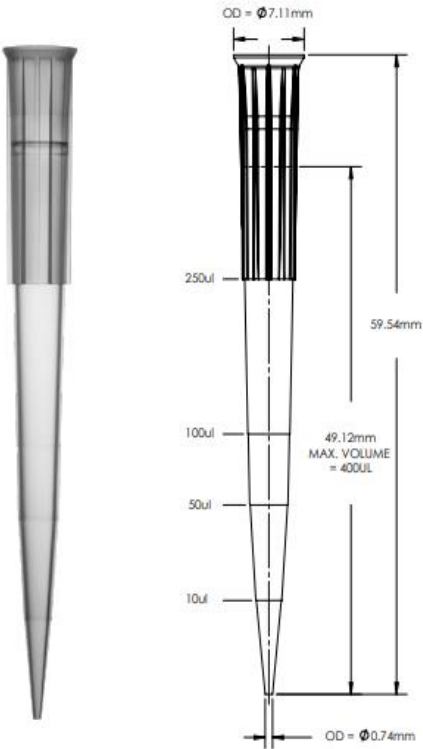
Catalog #	Description	Tip Type	Pack Quantity
<b>2100.N</b> 63300526	20-200 µl Universal Pipette Tip	Natural Polypropylene	1000 tips/bag
<b>2100</b> 63302163	20-200 µl Universal Pipette Tip	<b>S3 Low Retention PP</b>	1000 tips/bag
<b>2102.N</b> 63300532	20-200 µl Universal Pipette Tip Racked	Natural Polypropylene	10 trays of 96/pack
<b>2102.NS</b> 63300533	20-200 µl Universal Pipette Tip Racked Pre-Sterile	Natural Polypropylene	10 trays of 96/pack
<b>2102</b> 63302165	20-200 µl Universal Pipette Tip Racked	<b>S3 Low Retention PP</b>	10 trays of 96/pack
<b>2102.S</b> 63300534	20-200 µl Universal Pipette Tip Racked Pre-Sterile	<b>S3 Low Retention PP</b>	10 trays of 96/pack
<b>2101.N</b> 63300530	20-200 µl Universal Pipette Tip Racked & Stack	Natural Polypropylene	5 inserts of 192/pack
<b>2101</b> 63302164	20-200 µl Universal Pipette Tip Racked & Stack	<b>S3 Low Retention PP</b>	5 inserts of 192/pack
<b>2107.N</b> 63300538	20-200 µl Universal Pipette Tip <b>ESP Reload System</b>	Natural Polypropylene	10 cards of 96/pack
<b>2107</b> 63302166	20-200 µl Universal Pipette Tip <b>ESP Reload System</b>	<b>S3 Low Retention PP</b>	10 cards of 96/pack

#### Pipettor Compatibility

**Biohit™ Electronic:** Variable 5-100ul,  
**Biohit™ Proline:** Variable 5-50ul, Variable 50-200ul, **Brand™ Transferpette:** Variable 5-50ul, Variable 50-100ul, Variable 20-200ul,  
**CLP Ergo™ Pipettors:** Variable 5-50ul, Variable 25-200ul, Variable 50-300ul,  
**CLP BetaPette™ Pipettors:** B20- Variable 2-20ul, B.100 Variable 10-100ul, B.200 Variable 20-200ul, B8.300 Variable 50-300ul, B12.300 Variable 50-300ul, **CLP/Poseidon™ brand Electronic Single Channel Pipettors:** Variable 10-200ul, **CLP/Poseidon™ brand Electronic Multi Channel Pipettors:** Variable 10-200ul, **Eppendorf™ Electronic:** Variable 5-100ul, **Eppendorf™ Reference:** Variable 2-20ul, Variable 10-100ul, Variable 20-200ul, **Eppendorf™ Research:** Variable 2-20ul, Variable 10-100ul, Variable 20-200ul, **Finnpipette™ Single channel:** Variable 5-40ul, Variable 40-200ul, **Finnpipette™ Multi-channel:** Variable 5-50ul, Variable 50-300ul, **Gilson™ Pipetman:** P20 Variable 2-20ul, P100 Variable 10-100ul, P200 Variable 20-200ul, **Hamilton™:** Variable 2.5-25ul, Variable 10-100ul, Variable 30-300ul, **Hamilton™ Multi-channel:** Variable 5-50ul, Variable 30-300ul, **Matrix®** Variable 2-125ul, **Nichiryo/Oxford™ Benchmate:** Variable 2-20ul, Variable 10-50ul, Variable 10-100ul, Variable 20-200ul, **Rainin® EDP:** E2-25 Variable 2-25ul, E2-100 Variable 10-100ul, E2-250 Variable 25-250ul, **Rainin® Latchmode:** R20 Variable 2-20ul, R100 Variable 10-100ul, R200 Variable 20-200ul, **Socorex™ Calibra:** Variable 10-100ul, Variable 20-200ul, **Socorex™ Digital:** Variable 10-100ul, Variable 10-100ul, Variable 20-200ul, **Wheaton™ Single Channel:** Variable 10-200ul



2090 Series



Ordering Information:

Catalog	Description	Tip Type	Pack Quantity
Graduation marks are indicated at both 0.5, 2 and 10 µl locations Refer to product image for visuals			
<b>2090.N</b> <b>63300516</b>	20-300µL Universal Pipette Tip	Natural Polypropylene	1000 tips/bag
<b>2090</b> <b>63302160</b>	20-300 µl Universal Pipette Tip	<b>S3 Low Retention PP</b>	1000 tips/bag
<b>2092.N</b> <b>63300518</b>	20-300 µl Universal Pipette Tip Racked	Natural Polypropylene	10 trays of 96/pack
<b>2092.NS</b> <b>63300519</b>	20-300 µl Universal Pipette Tip Racked Pre-Sterile	Natural Polypropylene	10 trays of 96/pack
<b>2092</b> <b>63302161</b>	20-300 µl Universal Pipette Tip Racked	<b>S3 Low Retention PP</b>	10 trays of 96/pack
<b>2092.S</b> <b>63300520</b>	20-300 µl Universal Pipette Tip Racked Pre-Sterile	<b>S3 Low Retention PP</b>	10 trays of 96/pack
<b>2097.N</b> <b>63300523</b>	20-300 µl Universal Pipette Tip <b>ESP Reload System</b>	Natural Polypropylene	10 cards of 96/pack
<b>2097</b> <b>63302162</b>	20-300 µl Universal Pipette Tip <b>ESP Reload System</b>	<b>S3 Low Retention PP</b>	10 cards of 96/pack

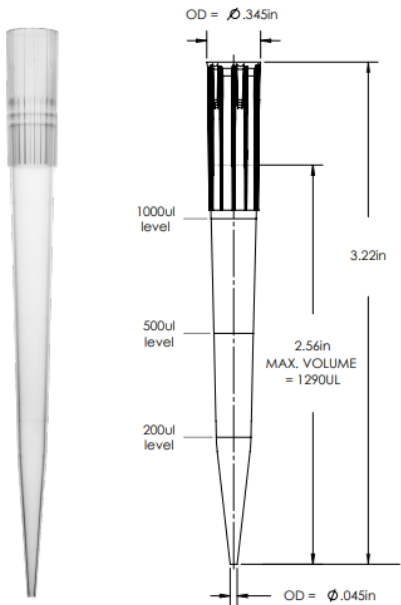
Pipettor Compatibility:

Biohit™ M100 and M200 | Biohit Proline Plus™ 100 µl (works with 2090 Series) | Biohit Proline Plus™ 200 µl | Brand Transferpette S™ 200 µl | Brand Transferpette Electronic™ 300 µl | Capp™ 50, 100 and 300 µl | CLP Beta-Pette™ 200 µl | CLP Poseidon™ 50 , 100, 200 and 300 µl | CLP Poseidon Electronic™ 200 µl | Eppendorf Reference™ 200 µl | Eppendorf Research™ 100 µl (works with 2090 Series) | Eppendorf Research™ 200 and 300 µl | Eppendorf Research Plus™ 200 µl | Eppendorf Xplorer™ 300 µl | Finnpiquette™ 50, 200 and 300 µl | Finnpiquette™ Electronic 300 µl | Gilson Pipetman™ P200 | Gilson Pipetman Ultra™ U200 | Hamilton™ 25, 100 and 300 µl | Nichiryo Nichipet EX™ 200 µl | Nichiryo Oxford Multimate™ 300 µl | Socorex Calibri 822™ 200 µl | VWR Ergonomic High Performance™ 20 µl (works with 2090 Series) | VWR Ergonomic High Performance™ 200 µl | VWR Ultra High Performance™ 20, 100 µl (works with 2090 Series) | VWR Ultra High Performance™ 200 µl

Graduated Tips 1000 µl

Ordering Information

2160 Series



Catalog #	Description	Tip Type	Pack Quantity
	<ul style="list-style-type: none"><li>Graduation marks are indicated at both 100, 200 and 500 µl locations Refer to product image for visuals</li><li>Autoclavable at 120°C for 10-15 minutes at 15 PSI</li></ul>		
<b>2160</b> <b>63302168</b>	1000 µl Universal Pipette Tip	Natural Polypropylene	1000 tips/bag
<b>2162.96</b> <b>63302169</b>	1000 µl Universal Pipette Tip Racked	Natural Polypropylene	8 racks of 96 tips/pack
<b>2162.96.S</b> <b>63300549</b>	1000 µl Universal Pipette Tip Racked Pre-Sterile	Natural Polypropylene	8 racks of 96 tips/pack
<b>2167.96</b> <b>63302170</b>	1000 µl Universal Pipette Tip <b>ESP Reload System</b> Pre-Sterile	Natural Polypropylene	10 cards of 96/pack

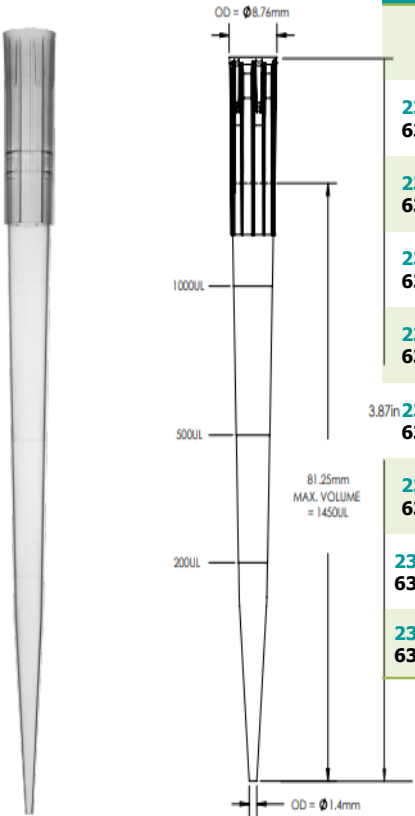
Pipettor Compatibility:

Biohit Proline™ 1000 µl | Brand Transferpette™ 1000 µl | CLP Beta-Pette™ 1000 µl | CLP Poseidon™ 1000 µl | CLP Poseidon Electronic™ 1000 µl | Eppendorf Reference™ 1000 µl | Eppendorf Research™ 1000µl | Eppendorf Research Plus™ 1000 µl | Eppendorf Xplorer™ 1000 µl | Finnpiquette™ 1000 and 1200 µl | Gilson Pipetman™ P1000 | Hamilton™ 1000 µl | Labnet BioPette E™ 1200 µl | Nichiryo Nichipet EX™ 1000 µl | Socorex Calibri 822™ 1000 µl | VWR Ergonomic High Performance™ 1000 µl | VWR Ultra High Performance™ 1000 µl



Ordering Information

2370 Series



Catalog #	Description	Tip Type	Pack Quantity
	Graduation marks are indicated at 200, 500 and 1000 µl locations – refer to product image for visuals		
<b>2370</b> <b>63302177</b>	100 - 1250 µl Extended Length Pipette Tip	<b>S3 Low Retention PP</b>	1000 tips/bag
<b>2370.N</b> <b>63300563</b>	100 - 1250 µl Extended Length Pipette Tip	Natural Polypropylene	1000 tips/bag
<b>2372.N</b> <b>63300565</b>	1000 µl - 1250 µl Extended Length Pipette Tip Racked	Natural Polypropylene	8 trays of 96/pack
<b>2372.N</b> <b>63300566</b>	1000 µl - 1250 µl Extended Length Pipette Tip Racked Pre-Sterile	Natural Polypropylene	8 trays of 96/pack
<b>2372</b> <b>63302178</b>	100 - 1250 µl Extended Length Pipette Tip Racked	<b>S3 Low Retention PP</b>	8 trays of 96/pack
<b>2372.S</b> <b>63300567</b>	100 - 1250 µl Extended Length Pipette Tip Racked Pre-Sterile	<b>S3 Low Retention PP</b>	8 trays of 96/pack
<b>2377.N</b> <b>63300570</b>	1000 µl - 1250 µl Extended Length Pipette Tip <b>ESP Reload System</b>	Natural Polypropylene	10 cards of 96/pack
<b>2377</b> <b>63302179</b>	1000 µl - 1250 µl Extended Length Pipette Tip <b>ESP Reload System</b>	<b>S3 Low Retention PP</b>	10 cards of 96/pack

Pipettor Compatibility:

Biohit Proline™ 1000 µl | Brand Transferpette™ 1000 µl | CLP Beta-Pette™ 1000 µl | CLP Poseidon™ 1000 µl | CLP Poseidon Electronic™ 1000 µl | Eppendorf Reference™ 1000 µl | Eppendorf Research™ 1000µl | Eppendorf Research Plus™ 1000 µl | Eppendorf Xplorer™ 1000 µl | FinnpiPETTE™ 1000 & 1200 µl | Gilson PIpetman™ P1000 | Hamilton™ 1000 µl | Labnet BioPette E™ 1200 µl | Nichiryo Nichipet EX™ 1000 µl | Socorex Calibri 822™ 1000 µl | VWR Ergonomic High Performance™ 1000 µl | VWR Ultra High Performance™ 1000 µl

### 5.0ml Pipet Tips Olympus Plastics

- Fits Gilson, Rainin, Eppendorf, Poseidon and other universal fit-style pipettors
- **Not compatible with Socorex, Accumax, Biohit and Finnpiquette**
- High precision macro tips
- More accurate than serological pipettes when measuring large volumes of solution

#### Ordering Information

Catalog #	Description	Tip Type	Pack Quantity
<b>27-526</b>	5.0 ml Pipet Tips	Natural Polypropylene	250 tips/bag
<b>27-526R</b>	5.0 ml Pipet Tips	Natural Polypropylene	10 Racks of 50 Tips
<b>27-345</b>	5.0 ml Pipet Tips <b>Sterile</b>	Natural Polypropylene	10 rack of 50 Tips

### 10ml Pipet Tips Olympus Plastics

- Fits Gilson, Rainin, Eppendorf, Poseidon and other universal fit-style pipettors
- **Not compatible with Socorex, Accumax, Biohit and Finnpiquette**
- High precision macro tips
- More accurate than serological pipettes when measuring large volumes of solution

#### Ordering Information:

Catalog #	Description	Tip Type	Pack Quantity
<b>27-111RB</b>	10 ml Pipet Tips	Natural Polypropylene	150 tips/bag
<b>27-346</b>	10 ml Pipet Tips	Natural Polypropylene	10 Bags of 100
<b>27-111R</b>	10 ml Pipet Tips	Natural Polypropylene	10 rack of 25
<b>27-111-RS</b>	10 ml Pipet Tips <b>Sterile</b>	Natural Polypropylene	10 rack of 25







Ordering Information:

- Racks feature a patented lid-lock design for easy, one-hand operation
- Low-binding resin reduces sample loss and enhances sample delivery
- Compatible with most standard research laboratory pipettors
- Certified RNase, DNase, DNA, and PCR inhibitor-free
- Flat orifice
- No graduation marks
- 51.82mm height
- 0.17mm outer thickness
- Flat gel tip orifices feature a 0.4 inch long “duckbill” that is either .37mm or .17mm thick

Catalog	Description	Tip Type	Pack Quantity
24-118	10µl Flat Gel Tip, 0.17mm	Low binding resin	2 Racks of 96 Tips/unit
24-119	10µl Flat Gel Tip, 0.17mm	Low binding resin	Sterile 2 Racks of 96 Tips/unit
24-116	10µl Flat Gel Tip, 0.37mm	Low binding resin	2 Racks of 96 Tips/unit
24-117	10µl Flat Gel Tip, 0.37mm	Low binding resin	Sterile 2 Racks of 96 Tips/unit
	<ul style="list-style-type: none"><li>• Racks feature a patented lid-lock design for easy, one-hand operation</li><li>• Low-binding resin reduces sample loss and enhances sample delivery</li><li>• Compatible with most standard research laboratory pipettors</li><li>• Certified RNase, DNase, DNA, and PCR inhibitor-free</li><li>• Round orifice</li><li>• No graduation marks</li><li>• 51.82mm height</li><li>• 0.57mm outer thickness</li></ul>		
24-114	10µl Round Gel Tips, 0.57mm	Low binding resin	2 Racks of 96 Tips/unit
24-115	10µl Round Gel Tips, 0.57mm	Low binding resin	Sterile 2 Racks of 96 Tips/unit

## Ordering Information:

- Racks feature a patented lid-lock design for easy, one-hand operation
- Low-binding resin reduces sample loss and enhances sample delivery
- Compatible with most standard research laboratory pipettors
- Certified RNase, DNase, DNA, and PCR inhibitor-free
- Use tips with 0.17mm O.D. for loading 0.2mm thick gels.
- 83mm length for access to the bottom of narrow vessels and gel wells
- 5µl graduation for quick volume checks.
- Flat gel tip orifices feature a 0.4 inch long "duckbill" that is either .37mm or .17mm thick



Catalog #	Description	Tip Type	Pack Quantity
<b>24-104</b>	200µl Flat Gel Tip, 0.17mm	Low binding resin	Racked, 192 Tips/Unit
<b>24-105</b>	200µl Flat Gel Tip, 0.17mm	Low binding resin	Racked, Sterile, 192 Tips/Unit
<b>24-103</b>	200µl Flat Gel Tip, 0.37mm	Low binding resin	Racked, Sterile, 192 Tips/Unit
<b>24-102</b>	200µl Flat Gel Tip, 0.37mm	Low binding resin	Racked, 192 Tips/Unit
<b>24-102S</b>	200µl Flat Gel Tip, 0.37mm	Low binding resin	Racked, 200 Tips/Unit
	<ul style="list-style-type: none"> <li>• Racks feature a patented lid-lock design for easy, one-hand operation</li> <li>• Low-binding resin reduces sample loss and enhances sample delivery</li> <li>• Compatible with most standard research laboratory pipettors</li> <li>• Certified RNase, DNase, DNA, and PCR inhibitor-free</li> <li>• 83mm length for access to the bottom of narrow vessels and gel wells</li> <li>• 5µl graduation for quick volume check</li> <li>• For loading gels 0.6mm thick or greater</li> </ul>		
<b>24-112</b>	200µl Round Gel Tip, 0.57mm Racked	Low binding resin	2 Racks of 96 Tips/Unit
<b>24-113</b>	200µl Round Gel Tip, 0.57mm Racked	Low binding resin	Sterile, 2 Racks of 96 Tips/Unit
	<ul style="list-style-type: none"> <li>• For loading gels 0.6mm thick or greater</li> <li>• Fits: P-20, P-100, P-200 and most other similar pipettors</li> <li>• O.D. 0.6mm</li> <li>• Length: 68mm</li> <li>• Low-binding resin reduces protein loss and maximizes sample delivery</li> <li>• Certified RNase, DNase, DNA, and PCR inhibitor-free</li> </ul>		
<b>14-100</b>	200µl Round Gel Tips, .57mm Bulk	Low binding resin	Non-Sterile, Bag of 1000 Tips/Unit
<b>14-101</b>	200µl Round Gel Tips, .57mm Racked	Low binding resin	Non-Sterile, 10 Racks of 96 Tips/Unit
<b>14-102</b>	200µl Round Gel Tips, .57mm Racked	Low binding resin	Sterile, 10 Racks of 96 Tips/Unit



### xTIP4 LTS Compatible Pipette Tips

xTIP4 pipette tips create an ergonomic fit on xPIPETTE and LTS pipettes. Positive stop technology keeps ejection forces low allowing you to pipette more ergonomically.



#### StarStop®

Ensures a secure, consistent seal to your pipette in the same place, every time.



#### FlexFit®

Flexible proximal end reduces insertion and ejection forces with any pipette.



#### X-Resin®




Low retention qualities minimize sample retention and improve accuracy.



Improve the ergonomics of your lab with xTIP4 pipette tips. These tips feature positive stop technology ensuring every tip you attach ejects with minimal force. Everyone in your lab will benefit from the low ejection force without having to change his or her technique or pipetting style. xTIP4 tips are made for a perfect fit on the Biotix xPIPETTE, they are also fully compatible with Rainin's LTS pipettes.

- Compatible with the Biotix xPIPETTE and Rainin's LTS pipette
- Light insertion and ejection forces
- Low binding X-Resin maximizes your sample recovery
- Reduce plastic waste, Biotix tip racks use 30% less plastic then leading competitors






Each lot of Biotix tips are tested and certified free of DNase/RNase, endotoxins/pyrogens, PCR inhibitors, and human DNA.

## Racked

	Catalog #	Description	Tip Type	Pack Quantity
	<b>63300020</b>	<b>0.1-20µL</b> xTIP4 Pipette Tips	Racked, Low Retention	10 racks of 96/pack, 5 packs/case
	<b>63300005</b>		Racked <b>Sterilized</b> , Low Retention	
	<b>63300021</b>	<b>10-250µL</b> xTIP4 Pipette Tips	Racked, Low Retention	10 racks of 96/pack, 5 packs/case
	<b>63300006</b>		Racked <b>Sterilized</b> , Low Retention	
	<b>63300022</b>	<b>20-300µL</b> xTIP4 Pipette Tips	Racked, Low Retention	10 racks of 96/pack, 5 packs/case
	<b>63300007</b>		Racked <b>Sterilized</b> , Low Retention	

	Catalog #	Description	Tip Type	Pack Quantity
	<b>63300023</b>	<b>100-1000µL</b> xTIP4 Pipette Tips	Racked, Low Retention	8 racks of 96/pack, 5 packs/case
	<b>63300008</b>		Racked Retention <b>Sterilized,</b> Low	
	<b>63300024</b>	<b>100-1200µL</b> xTIP4 Pipette Tips	Racked, Low Retention	8 racks of 96/pack, 5 packs/case
	<b>63300009</b>		Racked Retention <b>Sterilized,</b> Low	

## Reload System

	Catalog #	Description	Tip Type	Pack Quantity
	<b>63300025</b>	<b>0.1-20µL</b> xTIP4 Pipette Tips	Refill, Low Retention	10 refills of 96/pack, 5 packs/case
	<b>63300010</b>		Refill Retention <b>Sterilized,</b> Low	
	<b>63300026</b>	<b>10-250µL</b> xTIP4 Pipette Tips	Refill, Low Retention	10 refills of 96/pack, 5 packs/case
	<b>63300011</b>		Refill Retention <b>Sterilized,</b> Low	
	<b>63300012</b>	<b>20-300µL</b> xTIP4 Pipette Tips	Refill, Low Retention	10 refills of 96/pack, 5 packs/case
	<b>63300027</b>		Refill Retention <b>Sterilized,</b> Low	
	<b>63300028</b>	<b>100-1000µL</b> xTIP4 Pipette Tips	Refill, Low Retention	8 refills of 96/pack, 5 packs/case
	<b>63300013</b>		Refill Retention <b>Sterilized,</b> Low	
	<b>63300029</b>	<b>100-1200µL</b> xTIP4 Pipette Tips	Refill, Low Retention	8 refills of 96/pack, 5 packs/case
	<b>63300014</b>		Refill Retention <b>Sterilized,</b> Low	



# Neptune & Olympus Plastics™ brands Tubes

**NEPTUNE**  
Tools for Life Sciences

**OLYMPUS**  
plastics  
A Genesee Scientific Brand

## Tube Section Overview

PCR Tubes

8-Strip PCR Tubes

12-Strip PCR Tubes

Microcentrifuge Tubes

Screw Cap Tubes

Cryovials

Cryotubes

Minitube System

Conuical Tubes

Tube Tags

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## Strip tubes

## 0.2ml tubes



## 0.6ml tubes



## 1.6ml tubes



## 2.0ml tubes



## 15 &amp; 50ml tubes

## Cryovials &amp; Cryotubes



CLP offers a wide array of premium quality tubes for your most demanding research needs. We offer 0.2ml and 0.6ml thin-wall PCR tubes as well as 0.2ml microtube strips available with either attached or detached caps. All of our thin-wall tubes allow for efficient heat transfer and fast cycling times, and are compatible with standard 96-well heat blocks.

Our Neptune™ brand 1.6ml microcentrifuge tubes are ideal for a wide array of laboratory procedures. Available in both clear and assorted colors these tubes can withstand up to 24,000 RCF and are boil proof up to 30 minutes. They are also available in CLP's proprietary S<sup>3</sup> polymer designed to maximize sample recovery. We also offer a fine selection of cryovials and cryotubes designed for cryogenic sample storage. Available with and without locking bases these tubes feature special thread designs and silicone O-rings to ensure long term storage for your samples.

All of our products are manufactured under stringent controls in our ISO 9001:2000 certified automated facility. Our manufacturing process continually monitors the quality of the product by visual examination with magnification for defects, contamination, or process damage. All of our sterile packaged products are electron beam irradiated in an electronically controlled process, and are tested by 14 day cultures to monitor pre and post irradiation bacterial and fungal bio-loads.

Our newest product offering is our Neptune™ brand centrifuge tubes. Available in both 15 and 50ml sizes these high quality polypropylene tubes are designed to withstand up to 9400 RCF. Our tubes are stamped with specially formulated inks which are fully autoclavable and resistant to most laboratory solvents.

Category	Catalog #	Description	Volume	Page No.
PCR Tubes	<b>3423.X</b>	Flat Cap Thinwall Tube	0.2 ml	184
	<b>3425.X</b>	Domed Cap Thinwall Tube	0.2 ml	184
	<b>27-125UL</b>	8-Strip PCR Tubes, Natural Flex-Free, Individual Flat Caps	0.1 ml	185
	<b>27-125LW</b>	8-Strip PCR Tubes, Low Profile, White Individual Attached Flat Caps	0.1 ml	185
	<b>27-125U</b>	PCR Microtube Clear 8 Strips with attached flat caps	0.2 ml	186
	<b>24-705</b>	8-Strip Tubes and Dome Strip Caps, Clear Natural	0.2 ml	187
	<b>24-706</b>	8-Strip Tubes & Flat Strip Caps, Clear Natural	0.2 ml	187
	<b>27-403</b>	12 Strip PCR Tubes & Dome caps, Clear	0.2 ml	188
Snap Cap Microcentrifuge Tubes	<b>3735.X</b>	Flat CAP Microtube	0.6 ml	189
	<b>3745.X</b>	Ultra-Clear Graduated Microtube	1.6 ml	190
	<b>3765.X</b>	Graduated Microtube	2.0 ml	191
	<b>24-285</b>	Centrifuge Tubes, Clear Natural, Polypropylene	5.0 ml	192
Screw Cap Tubes	<b>Various</b>	Screw Cap Microcentrifuge Tubes	0.5 to 2.0 ml	193-194
Cryotubes & Vials	<b>Various</b>	Cryovials	1.2 to 10 ml	195
	<b>Various</b>	Cryotubes	0.5 to 2.0 ml	196
Other Tubes & Supplies	<b>Various</b>	Minitube System	1.1 ml	197
	<b>Various</b>	15 ml Centrifuge Tubes	15 ml	198
	<b>Various</b>	50 ml Centrifuge Tubes	50 ml	198
	<b>Various</b>	Tube Tag Labels	All	199-202

### 0.2 ml Thin Walled PCR Tubes

Our 0.2ml microtubes for PCR are made of high quality virgin polypropylene and feature thin walls for accelerated heat transfer. NEPTUNE microtubes are compatible with most leading thermal cyclers. Tubes and caps are autoclavable.

#### Features:

- Thin walled tube for best heat transfer
- Sterile tubes are certified DNase, RNase, and Pyrogen Free
- Made of virgin polypropylene
- Domed and flat caps available



**0.2ml Individual PCR Tubes Flat Cap,  
Natural, Bag of 1000 Tubes/Unit,  
Olympus Plastics 24-178**



**0.2ml Individual PCR Tubes Dome Cap,  
Natural, Bag of 1000 Tubes/Unit,  
Olympus Plastics 24-153**

- Certified free from RNase, DNase, DNA & PCR inhibitors. Also Endotoxin-Free
- Ultra-thin wall for optimum heat transfer
- Exceptionally clear, made from virgin polypropylene
- Made in the USA

**3423.X Flat cap**



**3425.X Domed cap**



### Ordering Information

Catalog # Flat Cap	Catalog # Domed Cap	Color	Type	Pack Quantity
<b>3423.X</b> 63300584	<b>3425.X</b> 63300588	Clear	Bulk	10 bgs of 100 tbs/pk
<b>3423.A.X</b> 63300581	<b>3425.A.X</b> 63300585	Assorted Colors*	Bulk	10 bgs of 100 tbs/pk
<b>3423.S.X</b> 63300583	<b>3425.S.X</b> 63300587	Clear, <b>Sterile</b>	Bulk	10 bgs of 100 tbs/pk
<b>3423.AS.X</b> 63300582	<b>3425.AS.X</b> 63300582	Assorted Colors <b>Sterile</b>		10 bgs of 100 tbs/pk

Catalog # Flat Cap	Catalog # Domed Cap	Color	Type	Pack Quantity
<b>24-178</b>	<b>24-153</b>	Clear	Bulk	1000 tubes
<b>24-178A</b>	<b>24-153A</b>	Assorted Colors*	Bulk	1000 tubes
<b>24-178B</b>	<b>24-153B</b>	<b>Blue</b>	Bulk	1000 tubes
<b>24-178G</b>	<b>24-153G</b>	<b>Green</b>	Bulk	1000 tubes
<b>24-178R</b>	<b>24-153R</b>	<b>Red</b>	Bulk	1000 tubes
<b>24-178V</b>	<b>24-153V</b>	<b>Violet</b>	Bulk	1000 tubes
<b>24-178Y</b>	<b>24-153Y</b>	<b>Yellow</b>	Bulk	1000 tubes



### 0.1ml 8-Strip PCR Tubes, Natural Flex-Free, Individual Flat Caps, 120 Strips/Unit Olympus Plastics 27-125UL

- UltraFlux
- 0.1ml wells, Low Profile
- Optically clear flat caps for real-time PCR
- Sturdy, robust links between tubes maintain tube strip integrity
- Uniform thin wall tubes
- Cap hinge at 45° angle for no cap/lip interference
- Certified free from RNase, DNase, DNA & PCR inhibitors. Also Endotoxin-Free

These optically clear 8-well strip tubes have their own individual attached optically clear flat caps with high clarity making them ideally suited for real-time (qPCR) applications. Available in white or clear polypropylene. White maximizes reflectance for enhanced signal. Ultraflux tubes do not easily break apart into less than 8 tubes. See SnapStrip tubes for that feature.

#### Tube Compatibility

7500 Fast, 7900HT Fast, StepOnePlus™, Opticon™, Chromo 4™, CFX Connect™, CFX96, ep Realplex, Quantica, LightCycler® and more



### 0.1ml 8-Strip PCR Tubes, Low Profile, White Individual Attached Flat Caps, 120 Strips/Unit Olympus Plastics 27-125LW

- UltraFlux
- 0.1ml wells, Low Profile
- Optically clear flat caps for real-time PCR
- Sturdy, robust links between tubes maintain tube strip integrity
- Uniform thin wall tubes
- Cap hinge at 45° angle for no cap/lip interference
- Certified free from RNase, DNase, DNA & PCR inhibitors. Also Endotoxin-Free

These optically clear 8-well strip tubes have their own individual attached optically clear flat caps with high clarity making them ideally suited for real-time (qPCR) applications. Available in white or clear polypropylene. White maximizes reflectance for enhanced signal.

Ultraflux tubes do not easily break apart into less than 8 tubes. See SnapStrip tubes for that feature.

### 0.2ml PCR Microtube 8 Strips with attached caps

- Optically clear flat caps for real-time PCR
- Made of FDA approved medical grade virgin polypropylene
- SnapStrip tubes easily snap apart to create a strip of <8 tubes by simply breaking the strip where desired
- Uniform thin wall for optimum heat transfer (0.20mm)
- Cap hinge at 45° angle for no cap/lip interference
- Certified free from RNase, DNase, DNA & PCR inhibitors. Also Endotoxin-Free
- White tubes offer statistically enhanced fluorescence reflection

These optically clear 8-well strip tubes have their own individual attached optically clear flat caps with high clarity making them ideally suited for real-time (qPCR) applications. Available in white or clear polypropylene. White maximizes reflectance for enhanced signal.

Also available in low profile design to ensure universal compatibility. See cat# 27-125UL.



### Ordering Information

### Related Products

Before	Catalog #	Description	Pack Quantity
3428.8	<b>27-125U*</b>	Clear, Flat Caps	120 Strips/Unit
3428.8A	<b>27-125UA</b>	Assorted Colors, Flat Caps	120 Strips/Unit
-----	<b>27-125LW</b>	White w/Clear Flat Caps	120 Strips/Unit

\* Also available in colors! Simply add the first letter(s) of the color to the end of the Cat #: Assorted, **Blue**, **Green**, **Red**, **Violet**, **Yellow**

### Strip tube adapters for centrifugation now available for our Silent Spin

See our Instrumentation section, page



Centrifuge







0.2ml PCR 8 Strip Microtube & Flat Strip or  
Domed Caps, Packed Together, Olympus Plastics

- Certified free from RNase, DNase, DNA & PCR inhibitors. Also Endotoxin-Free
- Ultra-thin wall for optimum heat transfer
- Exceptionally clear, made from virgin polypropylene
- Suitable for qPCR
- Made in the USA

Olympus 0.2ml thin-wall tubes offer dimensional uniformity throughout the sidewall and the conical bottom. Optimum uniform contact with the thermal cycler block is achieved, resulting in consistently superior well-to-well heat transfer and rapid cycling times. Certified free from RNase, DNase, DNA & PCR inhibitors. Also Endotoxin-Free.

Ordering Information

Catalog #	Description	Pack Quantity
24-705	0.2ml 8-Strip Tubes and Dome Strip Caps, Clear Natural	Box of 125 Tubes and Caps/Unit
24-705 <sup>a</sup>	0.2ml 8-Strip Tubes and Dome Strip Caps, Assorted Colors	Box of 125 Tubes and Caps/Unit
24-706	0.2ml 8-Strip Tubes & Flat Strip Caps, Clear Natural	Box of 125 Tubes & Caps/Unit

Tube Compatibility:

ABI® 5700, PRISM 7000, 7300, 7500, 7700, 7900HT, ViiA™ 7, QuantStudio, iCycler™, MyiQ, iQ™5, Stratagene and more

0.2 ml 12 Strip PCR Tubes & Dome caps,  
Olympus Plastics 27-403

- Tubes & Caps Packed Together, 80 Strips Each/Unit
- Convenient strip cap and strip tube combination pack
  - Strip tubes numerically labeled 1-12 near the top of the tube
  - Certified RNase, DNase, DNA, endotoxin and PCR inhibitor FREE

Olympus Brand 12-Well strip tubes come packaged with corresponding 12-strip dome caps. The caps help to resolve any potential concerns centering around cross-contamination when using strip caps. This assorted pack contains equal amounts of tubes and strip caps in the colors red, blue, green, violet and yellow.



Ordering Information

Before	Catalog #	Description	Pack Quantity
3426.12 & 3427.12	27-403	Clear	80 Strips
3426.12A& 3427.12A	27-403A	Assorted Colors	80 Strips



\*Assorted colors include: Blue, Green, Lavender, Red, Yellow

### 0.6ml Microcentrifuge Tubes

These flat-cap graduated tubes are frosted on top and side for convenient sample labeling identification. Graduations at 0.1, 0.2, 0.3, 0.4, 0.5 and 0.6ml make them ideal for many uses. Sterile product is packaged in a ziplock bag.

#### • Features:

- DNase, RNase, and Pyrogen Free
- Made of virgin polypropylene
- Labeled graduations at 0.2, 0.4, and 0.6ml
- Spin: 15min @ 20k RCF
- Flat Cap
- Frosted Side & Cap for sample labeling
- Autoclavable at 121°C for 15 minutes at 15 PSI
- Available pre-sterile **3735.S.X**, assorted colors **3735.A.X**, or clear non-sterile **3735.X**

#### Ordering Information

Catalog #	Description	Type	Pack Quantity
<b>3735.X</b> 63300632	Clear	Bulk	1000 tubes
<b>3735.A.X</b> 63300629	Assorted Colors*	Bulk	1000 tubes
<b>3735.S.X</b> 63300631	Clear, Sterile	Bulk	500 tubes



### 0.6ml Microtubes Natural Polypropylene, Nonsterile, Box of 1000 Tubes/Unit Olympus Plastics 24-272

- Certified free from RNase, DNase, DNA & PCR inhibitors. Also Endotoxin-Free
- Autoclavable, Temp Range: -90 to 121°C
- Rated to >20,000 x g
- Graduations every 100µl - easier estimation of contents!
- Frosted side writing surface
- Exceptionally clear - glass-like clarity

Olympus tubes feature an improved easy open snap seal. Tubes with ultimate boiling protection or for basic boiling applications are available. An ergonomically designed positive seal cap makes these tubes easier to open and close than other tubes. All tubes feature frosted writing surfaces on the cap and side for smear resistant labeling. Graduations every 100µl enable easier estimation of tube contents and more reliable rotor balancing.

Molded from clarified virgin polypropylene for unmatched strength and clarity. Certified free from RNase, DNase, DNA & PCR inhibitors. Also Endotoxin-Free.

#### Ordering Information

Catalog #	Description	Type	Pack Quantity
<b>24-272</b>	Clear	Box	1000 tubes
<b>24-272*</b>	Specify color	Box	1000 tubes
<b>24-272S</b>	Clear, Sterile	Box	500 tubes
<b>24-272LR</b>	Clear, Low Retention	Box	500 tubes

\*Also available in colors Simply add the first letter (s) of the color to the end of the Cat # Assorted, **Amber**, **Blue**, **Green**, **Orange**, **Red**, **Violet**, **Yellow**.

## 1.6ml Microcentrifuge Tubes

## Neptune & Olympus Plastics™ brand Plastics



### 1.6 ml. Graduated Microcentrifuge Tubes

With graduations at 0.1, 0.5, 1.0 and 1.5ml, a frosted flat cap and side, these microcentrifuge tubes make sample identification a snap. Sterile tubes are packaged in a zip-lock bag.

#### Features:

- Ultra-clear polypropylene polymer
- Labeled graduations at 0.1, 0.5, 1.0 and 1.5ml
- Frosted cap & side for easy labeling
- Spin: 60min @ 20,000 RCF
- Boil: Tested for 15 minutes
- Available pre-sterile **3745.S.X**, assorted colors **3745.A.X** or clear **3745.X** non-sterile Frosted sided and flat cap for easy labeling
- DNase, RNase and pyrogen free
- Autoclavable at 121°C for 15 minutes at 15 PSI

#### Ordering Information

Catalog #	Description	Type	Pack Quantity
<b>3745.X</b> 63300638	Clear	Bulk	500 tubes
<b>3745.A.X</b> 63300635	Assorted Colors*	Bulk	500 tubes
<b>3745.S.X</b> 63300637	Clear, <b>Sterile</b>	Bulk	250 tubes



### 1.7ml Microtubes, Clear Polypropylene, Wide Cap, OLYMPUS PLASTICS

- **24-281 ,Polypropylene, Wide Cap, Boil-Resistant**
- **24-282 Polypropylene, Boilproof**

With graduations at 0.1, 0.5, 1.0 and 1.5ml, a frosted flat cap and side, these microcentrifuge tubes make sample identification a snap. Sterile tubes are packaged in a zip-lock bag.

#### Features:

Certified free from Endotoxins, RNase, DNase, DNA & PCR inhibitors | Autoclavable, Temp Range: -90°C to 121°C | Rated to >20,000 x g | Graduations every 100µl | Frosted side writing Surface | Exceptional glass-like clarity

- 24-281 Wide cap flange for easy opening
- 24-281 Positive Snap Seal and convenient piercing port at the cap center
- 24-282 Boilproof protection with positive seal cap and piercing port

#### Ordering Information

Catalog #	Description	Type	Pack Quantity
<b>24-281</b>	Clear, Large Cap	Box	500 tubes
<b>24-281*</b>	Specify Color, Large Cap	Box	500 tubes
<b>24-282</b>	Clear	Box	500 tubes
<b>24-282*</b>	Specify Color	Box	500 tubes
<b>24-282S</b>	Clear, <b>Sterile</b>	Box	250 tubes
<b>24-282LR</b>	Clear, <b>Low Retention</b>	Box	250 tubes
<b>24-282LRA</b>	Assorted, <b>Low Retention</b>	Box	250 tubes



2.0 ml. Graduated Microcentrifuge Tubes

The Neptune™ brand 2.0ml graduated microcentrifuge tube features labeled graduations at 0.5, 1.0, 1.5 and 2.0ml for volume verification. The tube's cap and side are frosted for sample labeling. The cap incorporates a 0.28mm piercing port that is located in the center of the cap for sample removal. Sterile tubes are packaged in a zip-lock bag.

Features:

- Labeled graduations at 0.5, 1.0, 1.5 and 2.0ml
- Frosted cap and side for easy labeling
- Spin: 15min @ 20k RCF
- Boil: 15min

Ordering Information

Catalog #	Description	Type	Pack Quantity
3765.X 63300642	Clear	Bulk	500 tubes
3765.A.X 63300640	Assorted Colors*	Bulk	500 tubes
3765.S.X 63300641	Clear, Sterile	Bulk	250 tubes



2.0ml Microtubes, Clear Polypropylene, Boilproof,  
OLYMPUS PLASTICS 24-283

- Certified free from RNase, DNase, DNA & PCR inhibitors. Also Endotoxin-Free
- Autoclavable, Temp Range: -90°C to 121°C
- Rated to 20,000 x g
- Graduations every 100µl - easier estimation of contents!
- Frosted side writing surface
- Exceptionally clear - glass-like clarity
- Boilproof and easy to open and close
- Made in the USA

Ordering Information

Catalog #	Description	Type	Pack Quantity
24-283	Clear	Box	500 tubes
24-283*	Specify Color	Box	500 tubes
24-283S	Clear, Sterile	Box	250 tubes
24-283LR	Clear, Low Retention	Box	250 tubes

\*Also available in colors Simply add the first letter (s) of the color to the end of the Cat # Assorted, **Amber**, **Blue**, **Green**, **Orange**, **Red**, **Violet**, **Yellow**.





### 5ml Centrifuge Tubes, Clear Natural, Polypropylene, Olympus Plastics 24-285

- Same diameter and bottom shape as a 15ml conical tube—allows for use in existing adapters and racks
- Exceptional clarity & easy-open flip top
- Exceptional centrifugation stability of up to 25,000 x g
- Dual graduations - every 0.2ml and 0.5ml
- Tight, leak-proof seal

- Autoclavable when open (121°C, 20 min)
- Made of maximum clarity, low-binding virgin polypropylene
- Certified RNase & DNase Free

Olympus Plastics 5ml centrifuge tubes take all of the conveniences of standard 1.5ml tubes and scale them up for larger volumes. The 16mm tube diameter is identical to the diameter of standard 15ml tubes, which ensures further compatibility with centrifuge rotors, etc. These polypropylene tubes come with an attached cap that not only provides a tight, leak-proof seal, but also effortless opening and closing with one hand. The cap is designed to provide a secure seal from -86°C to +80°C. Cap lock clips are available to maintain the integrity of the seal at extreme temperatures. In incubated/heated applications, tubes may be "boiled" for up to 10 minutes. At temperatures above 80°C, the use of the cap lock is recommended.

The center of the cap also has a special thin "membrane" area that is designed for easy puncture and access by a syringe/needle. Once punctured, the opening can also be useful for venting the internal pressure caused by incubation at moderately high temperatures. The tubes are made of maximum clarity, low-binding virgin polypropylene and are certified RNase & DNase free. Sterile tubes are also pyrogen free. They are sized to be compatible with all USA and standard German-designed equipment, including centrifuges, dry bath block heaters, tube racks and thermal shakers/vortexers.

#### Ordering Information

Catalog #	Description	Type	Pack Quantity
<b>24-285</b>	Clear	Box	200 tubes
<b>24-285*</b>	Specify Color	Box	200 tubes
<b>24-285S</b>	Clear, <b>Sterile</b>	Box	200 tubes

\*Also available in colors Simply add the first letter (s) of the color to the end of the Cat # Assorted, **Black**, **Blue**, **Green**, **Red**, **Yellow**.



### 5ml Screw Cap Tubes, Polypropylene, Clear & Black Olympus Plastics 24-285

- Same diameter and bottom shape as a 15ml conical tube—allows for use in existing adapters and racks
- Exceptional centrifugation stability of up to 25,000 x g
- Dual graduations - every 0.2ml and 0.5ml
- Tight, leak-proof seal
- Autoclavable without screw cap (121°C, 20 min)
- Made virgin polypropylene
- Non-Sterile, Certified RNase & DNase Free  
**24-285SC** Certified RNase & DNase Free  
**24-285SCB, 24-285SBK & 24-282SCS**

Olympus Plastics 5ml centrifuge tubes take all of the conveniences of standard 1.5ml tubes and scale them up for larger volumes. The 16mm tube diameter is identical to the diameter of standard 15ml tubes, which ensures further compatibility with centrifuge rotors, etc. These polypropylene tubes come with a screw cap that provides a tight, leak-proof seal, and effortless opening and closing with a single 360° turn. The cap is designed to provide a secure seal from -86°C to +110°C. These tubes are a valuable vessel for boiling and low temperature sample preservation.

The center of the cap also has a special thin "membrane" area that is designed for easy puncture and access by a syringe/needle. Once punctured, the opening can also be useful for venting the internal pressure caused by incubation at moderately high temperatures. The tubes are made of maximum clarity, low-binding virgin polypropylene and are certified RNase & DNase free. Sterile tubes are also pyrogen free. They are sized to be compatible with all USA and standard German-designed equipment, including centrifuges, dry bath block heaters, tube racks and thermal shakers/vortexers.

#### Ordering Information

Catalog #	Description	Type	Pack Quantity
<b>24-285SBK</b>	Black Opaque, <b>Sterile</b>	Box	10 Rack of 50
<b>24-285SC</b>	Clear	Bulk	5 bag of 100
<b>24-285SCB</b>	Clear, <b>Sterile</b>	Bulk	5 bag of 100
<b>24-282SCS</b>	Clear, <b>Sterile</b>	Box	10 rack of 50

Screw Cap Tubes, Non-Sterile, Olympus Plastics

- Versatile and durable microtubes. O-ring screw caps sold separately (21-266)
- Constructed of super clear, autoclavable, medical grade polypropylene
- Suitable from -196°C (vapor phase) to +121°C
- Can be centrifuged to over 20,000g
- 100µl graduation mark versions available for most sizes
- Certified RNase, DNase & DNA free
- Sterile versions are certified pyrogen-free
- Tubes available in conical bottom or skirted versions



Ordering Information

Before CLEAR	Catalog #	Description Non Sterile	Catalog #	Description Sterile	Catalog #	Description Sterile	Volume	Quantity / Bag
3733 -----	21-261 -----	Clear, Skirted -----	21-261AM -----	Amber, Skirted -----	21-258 21-358	Clear, Skirted Clear, Skirted, Ribbed	0.5 ml 0.5 ml	500 tubes 500 tubes
3743 -----	21-263 -----	Clear, Skirted -----	21-263 AM -----	Amber, Skirted -----	21-356 21-256	Clear, Skirted Clear, Skirted, Ribbed	1.5 ml 1.5 ml	500 tubes 500 tubes
3763 -----	21-265 -----	Clear, Skirted, graduated -----	21-265AM -----	Amber, Skirted -----	21-254 21-354	Clear, Skirted, graduated Clear, Skirted, Ribbed	2.0 ml 2.0 ml	500 tubes 500 tubes
3734	21-260	Clear, Conical	-----	-----	21-259	Clear, Conical	0.5 ml	500 tubes
3744	21-262	Clear, Conical	-----	-----	21-257	Clear, conical, graduated	1.5 ml	500 tubes
3764	21-264	Clear, Conical	-----	-----	21-255	Clear, conical, graduated	2.0 ml	500 tubes
-----	21-266	Screw Cap w/O Ring	21-266Amber	Amber screw cap	-----	-----	Alls	500 caps

\*Color caps only available for purchase separately. Caps available in colors! Simply add the first letter(s) of the color to the end of the Cat #: Assorted, Blue, Green, Orange, Red, Lavender, White, Yellow, Amber

### Screw Cap Tubes & Caps Screw Cap Assembled, Sterile, 10 Bags of 50 Tubes

- Versatile and durable microtubes with preassembled leak-proof o-ring screw caps
- Constructed with super clear medical grade polypropylene
- Suitable from -196°C (vapor phase) to +121°C
- Can be centrifuged to over 20,000g
- 100µl graduation mark versions available for most sizes
- Certified RNase, DNase & DNA free
- Sterile versions are certified pyrogen-free
- This tube is conical bottom, non-graduated, preassembled with caps on

Trust your precious samples with our most durable and versatile screw cap microcentrifuge tubes developed for secure use in a variety of laboratory environments. Tubes feature and easy 3/4 turn thread for one handed operation and compatible leak-proof o-ring screw cap. Olympus brand screw cap microtubes are ideal for general purposes, boiling applications, short or long-term cryogenic storage (-20°C, -80°C or LN2 vapor phase), etc. Rated to > 20,000 x g and Certified RNase, DNase & DNA free. Sterile, preassembled versions are also certified free of pyrogens.

#### Ordering Information



Before	Catalog #	Description Sterile	Volume	Quantity /Bag
<b>3733.S</b>	<b>21-258</b>	Clear, Skirted	0.5 ml	500 Tubes
-----	<b>21-358</b>	Clear, Skirted, Ribbed	0.5 ml	500 Tubes
<b>3743.S</b>	<b>21-356</b>	Clear, Skirted	1.5 ml	500 Tubes
-----	<b>21-256</b>	Clear, Skirted, Ribbed	1.5 ml	500 Tubes
<b>3763.S</b>	<b>21-254</b>	Clear, Skirted, Graduated	2.0 ml	500 Tubes
-----	<b>21-354</b>	Clear, Skirted, Ribbed	2.0 ml	500 Tubes
<b>3734.S</b>	<b>21-259</b>	Clear, Conical	0.5 ml	500 Tubes
<b>3744.S</b>	<b>21-257</b>	Clear, Conical Graduated	1.5 ml	500 Tubes
<b>3764.S</b>	<b>21-255</b>	Clear, Conical, Graduated	2.0 ml	500 Tubes



**T-312-7** Assortment colors white, blue, red, green and yellow (5 bags of 100).

Ordering Information

Before	Catalog #	Description	Volume	Dimensions
<b>3101</b>	<b>T310-1A</b>	Cryovials self-standing	1.2 ml	12.5x43 mm
<b>3102</b>	<b>T310-2<sup>a</sup></b>	Cryovials self-standing	2.0 ml	12.5x49 mm
<b>3103</b>	<b>T310-3A</b>	Cryovials self-standing	3.0 ml	12.5x72 mm
<b>3104</b>	<b>T310-4A</b>	Cryovials self-standing	4.0 ml	12.5x76 mm
<b>3105</b>	<b>T310-5A</b>	Cryovials self-standing	5.0 ml	12.5x93 mm
<b>-----</b>	<b>T310-10A</b>	Cryovials self-standing	10.0 ml	17x84 mm
<b>3120.A</b>	<b>T312-7</b>	Color coded inserts fit precisely into the cap of the Cryovial® for color identification.	All sizes	- - - -

**T310 - CRYOVIAL® EXTERNAL THREAD WITH SILICONE WASHER SEAL**

- The white washer seal fits tightly on top of the tube opening to ensure a leakproof seal
- Made of medical-grade, non-cytotoxic, USP class VI, and FDA compliant polypropylene\*
- BSE/TSE, BPA, phthalate, Latex, and Heavy metal-free
- Sterilized by Gamma radiation and Autoclavable
- Free of RNase, DNase, Pyrogen, and DNA

Designed for safe storage at temperatures as low as -196 °C (but should be used only in the gas phase of liquid nitrogen). Autoclavable at 121°C. Sterilized by gamma radiation and packaged in unique tamperproof, resealable, safety-lock bags of 100†. Skirted tubes have a locking base for easy one-hand operations and only 1 1/4 turn of the cap is sufficient to screw the cap on the vial. Closure\* and vial are both made of polypropylene having the same coefficient of expansion, ensuring an equally secure seal both at room temperature and at low cryogenic temperatures. Tubes have a white marking area, they can be color-coded with a Capinsert™ (Series T312) and are compatible with most storage systems. **Only the non-skirted vials can be centrifuged up to 17,000 x g.**

\*T310-10A exceptionally has a Polyethylene cap\*

†**T310-10A is sold in packs of 50; case of 500. All other tubes are sold in packs of 100; case of 1000**

SPECIFICATIONS:	
Tube material	Polypropylene
Cap material	Polypropylene*
Thread (Tube)	External
Cap color	Natural
Washer seal material	Silicone
Graduations	Yes
Sterilization	Gamma radiation
Temperature range	-196 °C to +121 °C
Autoclavable	Yes
95 kPa	Tested
CE - IVD	Yes
Certified	RNase, DNase, DNA and Pyrogen free



Cryotubes

Simport cryotubes offer significant advantages over traditional cryovial storage, and at a lower price! The smaller outside diameter and molded spin collar allows for use in standard microcentrifuge rotors, so you can spin, resuspend and freeze all in the same tube. You can store 100 tubes in the same space as 81 cryovials. Manufactured from virgin grade polypropylene with silicone O-rings to seal at all temperatures. CLP’s cryotubes are not just another screw cap tube, but a revolutionary cryostorage solution. Where else can you get more for less?

Cryotubes vs Standard Tubes

Cryo tubes and vials feature special thread designs, higher grade polymers and silicone O-rings to ensure secure long term storage for your precious cell cultures.

Standard screwcap tubes use neoprene O-rings and are designed for general laboratory use down to –80°C. Below this temperature the neoprene fails to offer an effective seal.



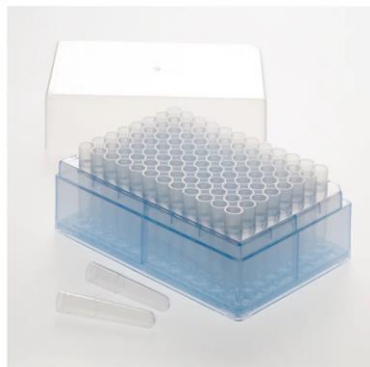
T345AS

Ordering Information

Before	Catalog #	Description	Volume	Dimensions	Type	Quantity/Bag
3470	T334-2SPR	Cryotubes Self-standing	0.5 ml	13x47 mm.	Pre-Sterile	500
3471	T334-4SPR	Cryotubes Self-standing	1.5 ml	13x47 mm.	Pre-Sterile	500
3472	T334-6SPR	Cryotubes Self-standing	2.0 ml	13x47 mm.	Pre-Sterile	500
3121.A	T345AS	Assorted Colored cap inserts	All sizes	- - - -	Non Sterile	500







### Mini Tube Systems (MTS)

Tubes and Caps

For Compound Library Storage

PP, 100% virgin. The Axygen 96-well mini tube system is designed to work with 8-strip or 12-strip plug caps.

Compatible with Beckman, Tecan, Zymark and other robotic workstations

One-way lid design with etched in alphanumeric grid ensures positive sample identification

Moulded in condensation rings on cover minimise risk of cross-contamination

- Available in 0.65ml single Mini Tube or 1.1ml single Mini Tube and 8- and 12- tube strip formats
- 96-well rack footprint compatible with Beckman, Tecan and other robotic workstations
- One-way lid design, in conjunction with alpha-numeric grid, ensures positive sample identification
- Cover 'molded-in condensation rings' minimize cross contamination
- Polypropylene tubes and racks are autoclavable

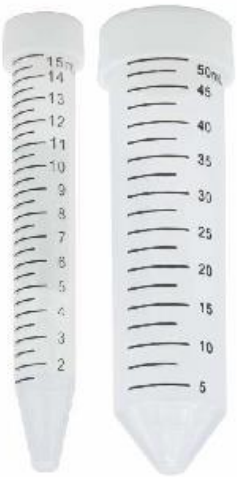
### Ordering Information

Catalog #	Description	Size	Type	Quantity/Bag
<b>MTS-11-C-R</b>	1.1 ml tubes	Single	Non sterile	96/rack, 10 racks/pack, 5 packs/case
<b>MTS-11-C-R-S</b>	1.1 ml tubes	Single	<b>Sterile</b>	96/rack, 10 racks/pack, 5 packs/case
<b>MTS-11-C</b>	1.1 ml tubes	Single	Non sterile	960 tubes/bag, 5 bags/case
<b>MTS-11-8-C-R</b>	1.1 ml tubes	8 Strip	Non Sterile	12 strips/rack, 10 racks/pack 5 packs/case
<b>MTS-11-8-C-R-S</b>	1.1ml Mini Tube	8 Strips	<b>Sterile</b>	12 strips/rack, 10 racks/pack 5 packs/case
<b>MTS-11-8-C</b>	1.1ml Mini Tube	8 Strips	Non Sterile	120 strips/bag, 5 bags/case
<b>MTS-11-12-C-R</b>	1.1ml Mini Tube	12 Strips	Non Sterile	8 strips/rack, 10 racks/pack 5 packs/case
<b>MTS-11-12-C-R-S</b>	1.1ml Mini Tube	12 Strips	<b>Sterile</b>	8 strips/rack, 10 racks/pack 5 packs/case
<b>MTS-11-12-C</b>	1.1ml Mini Tube	12 Strips	Non Sterile	80 strips/bag, 5 bags/case
<b>MTS-06-C-R</b>	0.65ml Mini Tube	Single	Non Sterile	96/rack, 10 racks/pack, 5 packs/case
<b>MTS-06-C-R-S</b>	0.65ml Mini Tube	Single	<b>Sterile</b>	96/rack, 10 racks/pack, 5 packs/case
<b>MTS-06-C</b>	0.65ml Mini Tube	Single	Non Sterile	960 tubes/bag, 5 bags/case
<b>MTS-8CP-C</b>	Mini Tube Cap	8 Strips	Non Sterile	120 strips/pack, 5 packs/case
<b>MTS-8CP-C-S</b>	Mini Tube Cap	8 Strips	Non Sterile	120 strips/pack, 5 packs/case
<b>MTS-12CP-C</b>	Mini Tube Cap	12 Strips	Non Sterile	80 strips/pack, 5 packs/case
<b>MTS-12CP-C-S</b>	Mini Tube Cap	12 Strips	<b>Sterile</b>	80 strips/pack, 5 packs/case



15 & 50 ml Conical Centrifuge Tubes, Polypropylene Sterile, GenClone

- White cap and writing area for convenient labeling
- Greater than 15ml capacity for freezing
- Certified free of DNase, RNase, Pyrogens and Cytotoxins
- Maximum RCF: 12,000 x g
- Withstands temperatures as low as -80°C and autoclavable
- Conical (V) bottom and leak-proof cap
- Black, easy-to-read calibrated graduations
- Sterilized by gamma irradiation



Ordering Information

Catalog #	Description	Dimensions	Type	Quantity
21-101	15 ml Conical Centrifuge Tubes	17 x 119.6 mm	Pre-Sterile	20 Racks of 25 Tubes, 500/Unit
21-103	15 ml Conical Centrifuge Tubes	17 x 119.6 mm	Pre-Sterile	20 Bags of 25 Tubes, 500/Unit
21-106	50 ml Conical Centrifuge Tubes	29.3 x 113.9 mm	Pre-Sterile	20 Racks of 25 Tubes, 500/Unit
21-108	50 ml Conical Centrifuge Tubes	29.3 x 113.9 mm	Pre-Sterile	20 Bags of 25 Tubes, 500/Unit

Related Products

Crystal™ racks for 50ml and 15ml Tubes

Locate your 15 or 50ml samples using our sliding drawer racks designed for your convenience. See our Crystal™ section, page .



3.1  
Minitubes





Cryo-Babies® on a Roll

Ideal Use	0.5 mL Tubes	1.5 mL Tubes	General Purpose
	<div>LABEL</div>	<div>LABEL</div>	<div>LABEL</div>

Label Dimensions	0.94 x 0.50 in (24 x 13 mm)	1.28 x 0.50 in (33 x 13 mm)	1.50 x 0.75 in (38 x 19 mm)
UOM	1,000/roll	1,000/roll	1,000/roll

COLOR	Catalog #		
White	HEACRY-0500	HEACRY-1000	HEACRY-2000
Blue	- - - -	HEACRY-1000-B	HEACRY-2000-B
Green	- - - -	HEACRY-1000-G	HEACRY-2000-G
Orange	- - - -	HEACRY-1000-O	HEACRY-2000-O
Red	- - - -	HEACRY-1000-R	HEACRY-2000-R
Yellow	- - - -	HEACRY-1000-Y	HEACRY-2000-Y

## Cryo-Babies® and Cryo-Tags® Heathrow Scientific





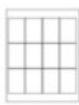

Low Temperature Labels

For secure uncompromised labeling

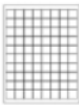


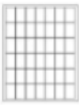


- Chemically inert
- Adheres to most plastics (100% virgin PP tubes recommended), glass and metals without cracking, peeling or degrading
- Flexible polyolefin material and acrylic adhesive expand and contract with temperature fluctuations



Laser Cryo-Tags® and Cryo-Babies® on Sheets formatted for laser printers

Ideal Use	0.5 mL Tubes	1.5 mL Tubes	1.5 mL Tubes	Cryogenic Vials	Bottles & Beakers	Microplates
						
Label Dimensions	0.94 x 0.50 in (24 x 13 mm)	1.28 x 0.50 in (33 x 13 mm)	1.28 x 0.50 in (33 x 13 mm)	1.69 x 0.75 in (43 x 19 mm)	3.0 x 2.0 in (76 x 51 mm)	1.50 x 0.25 in (38 x 6 mm)
Labels/Sheet	119	51	85	52	12	156
Labels/pk	2,380	1,020	1,700	1,040	240	3,120
UOM	20/pk	20/pk	20/pk	20/pk	20/pk	20/pk
Item No.						
White	HEALCRY-2380	HEAMINI-1700	HEALCRY-1700	HEALCRY-1100	HEALCRY-3020	HEASIDE-1000
Blue	HEALCRY-2380-B	-	HEALCRY-1700-B	HEALCRY-1100-B	-	HEASIDE-1100
Green	HEALCRY-2380-G	-	HEALCRY-1700-G	HEALCRY-1100-G	-	HEASIDE-1200
Orange	HEALCRY-2380-O	-	HEALCRY-1700-O	HEALCRY-1100-O	-	HEASIDE-1300
Red	HEALCRY-1380-R	-	HEALCRY-1700-R	HEALCRY-1100-R	-	HEASIDE-1400
Yellow	HEALCRY-1380-Y	-	HEALCRY-1700-Y	HEALCRY-1100-Y	HEALCRY-3020-Y	HEASIDE-1500
Rainbow*	HEARNBW-2300	-	HEARNBW-2200	HEARNBW-2000	-	HEARNBW-2400

Laser Cryo-Tags® and Cryo-Babies® on Sheets formatted for laser printers

Ideal Use	Microscope Slides	Racks & Boxes	Racks & Boxes	Racks & Boxes	General Purpose	General Purpose
						
Label Dimensions	1.0 x 1.0 in (25 x 25 mm)	2.50 x 0.50 in (64 x 13 mm)	2.625 x 1.0 in (67 x 25 mm)	1.125 x 1.75 in (29 x 45 mm)	8.5 x 11.0 in (216 x 279 mm)	1.50 x 0.75 in (38 x 19 mm)
Labels/Sheet	80	60	30	42	1	60
Labels/pk	1,600	1,200	600	840	20	1,200
UOM	20/pk	20/pk	20/pk	20/pk	20/pk	20/pk
Item No.						
White	HEALCRY-1400	HEALCRY-2500	HEALCRY-1258	HEALCRY-1300	HEALCRY-1000	HEALCRY-1200
Blue	-	-	HEALCRY-1258-B	-	-	HEALCRY-1200-B
Green	-	-	HEALCRY-1258-G	-	-	HEALCRY-1200-G
Orange	-	-	HEALCRY-1258-O	-	-	HEALCRY-1200-O
Red	-	-	HEALCRY-1258-R	-	-	HEALCRY-1200-R
Yellow	-	-	HEALCRY-1258-Y	HEALCRY-1300-Y	-	HEALCRY-1200-Y
Rainbow*	-	-	HEARNBW-2500	-	-	HEARNBW-2100



### Tough-Spots®

#### Tube Labels

Pre-cut peel off labels for tube tops

- Adheres to most plastics, glass, and metals without cracking, peeling or degrading
- Flexible polyolefin material and acrylic adhesive



- Label sheets are top coated and heat-resistant to prevent jams in laser printers
- Printer formatting instruction included

#### Tough-Spots® on a Roll

Ideal Use	0.2 mL Tubes	0.5 mL Tubes	1.5/2.0 mL Tubes	1.5/2.0 mL Tubes	15-50 mL Tubes	50 mL Tubes
Label Diameter	0.1875 in/4.8 mm	0.375 in/9.5 mm	0.4375 in/11 mm	0.50 in/13 mm	0.75 in/19 mm	1.0 in/25 mm
UOM	1,500/roll	1,000/roll	1,000/roll	1,000/roll	500/roll	500/roll
Item No.						
White	HEATS-TNY	HEAT-SPOTS	HEATSPOTS-44	HEAT-SPOTS-50	HEATSPOTS-75	HEAT-SPOTS-100
Blue	-	HEAT-SPOTS-B	-	HEAT-SPOTS-50-B	-	-
Coffee	-	HEAT-SPOTS-C	-	HEAT-SPOTS-50-C	-	-
Gold	-	HEAT-SPOTS-D	-	HEAT-SPOTS-50-D	-	-
Green	-	HEAT-SPOTS-G	-	HEAT-SPOTS-50-G	-	-
Lavender	-	HEAT-SPOTS-L	-	HEAT-SPOTS-50-L	-	-
Maroon	-	HEAT-SPOTS-M	-	HEAT-SPOTS-50-M	-	-
Orange	-	HEAT-SPOTS-O	-	HEAT-SPOTS-50-O	-	-
Pink	-	HEAT-SPOTS-P	-	HEAT-SPOTS-50-P	-	-
Red	-	HEAT-SPOTS-R	-	HEAT-SPOTS-50-R	-	-
Silver	-	HEAT-SPOTS-S	-	HEAT-SPOTS-50-S	-	-
Yellow	-	HEAT-SPOTS-Y	-	HEAT-SPOTS-50-Y	-	-

#### Laser Tough-Spots® on Sheets formatted for laser printers

Ideal Use	0.2 mL Tubes	0.5 mL Tubes	1.5/2.0 mL Tubes	1.5/2.0 mL Tubes	15-50 mL Tubes
Label Diameter	0.375 in/9.5 mm	0.4375 in/11 mm	0.50 in/13 mm	0.75 in/19 mm	1.0 in/25 mm
Labels/sheet	192	234	192	108	63
Labels/pk	3,840	4,680	3,840	2,160	1,260
UOM	20/pk	20/pk	20/pk	20/pk	20/pk
Item No.					
White	HEASPOT-1000	HEASPOT-5000	HEASPOT-2000	HEASPOT-3000	HEASPOT-4000
Blue	HEASPOT-1100	-	HEASPOT-2100	-	-
Green	HEASPOT-1200	-	HEASPOT-2200	-	-
Orange	HEASPOT-1300	-	HEASPOT-2300	-	-
Red	HEASPOT-1400	-	HEASPOT-2400	-	-
Yellow	HEASPOT-1500	-	HEASPOT-2500	-	-
Rainbow*	HEARNBW-1000	-	HEARNBW-1100	-	-





Tough-Tags® Tube Labels

Pre-cut labels for identification

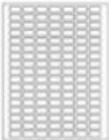
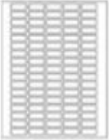
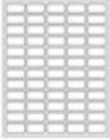
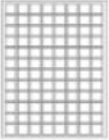
- Adheres to most plastics, glass, and metals without cracking, peeling or degrading
- Flexible polyolefin material and acrylic adhesive



Tough-Tags® on a Roll

Ideal Use	0.2 mL Tubes	0.5 mL Tubes	1.5/2.0 mL Tubes	General Purpose	Microplates
Label Diameter	0.81 x 0.28 in/21 x 7 mm	0.94 x 0.50 in/24 x 13 mm	1.28 x 0.50 in/33 x 13 mm	1.50 x 0.75 in/38 x 19 mm	1.50 x 0.28 in/38 x 6 mm
UOM	1,500/roll	1,000/roll	1,000/roll	1,000/roll	1,000/roll
Item No.					
White	HEATT-TNY	HEATTSW-1000	HEATTLW-1000	HEATTGP-1000	HEATT-SWALL
Blue	-	HEATTSB-1000	HEATTLB-1000	-	-
Green	-	HEATTSG-1000	HEATTLG-1000	-	-
Orange	-	HEATTSO-1000	HEATTL0-1000	-	-
Red	-	HEATTSR-1000	HEATTLR-1000	-	-
Yellow	-	HEATTSY-1000	HEATTLY-1000	-	-
Clear	-	HEATTSC-1000	HEATTLc-1000	-	-

Laser Tough-Tags® on Sheets formatted for laser printers

Ideal Use	0.5 mL Tubes	1.5/2.0 mL Tubes	General Purpose	Microscope Slides
				
Label Dimensions	0.94 x 0.50 in/24 x 13 mm	1.28 x 0.50 in/33 x 13 mm	1.50 x 0.75 in/38 x 19 mm	0.94 x 0.94 in/22 x 22 mm
Labels/Sheet	119	85	60	96
Labels/pk	2,975	2,125	1,500	2,400
UOM	25/pk	25/pk	25/pk	25/pk
Item No.				
White	HEATTSW-2240	HEATTLW-2016	HEATTLW-1050	HEAMISL-1000
Blue	HEATTSW-2240-B	HEATTLW-2016-B	HEATTLW-1050-B	HEAMISL-1000-B
Green	HEATTSW-2240-G	HEATTLW-2016-G	HEATTLW-1050-G	HEAMISL-1000-G
Orange	HEATTSW-2240-O	HEATTLW-2016-O	HEATTLW-1050-O	HEAMISL-1000-O
Red	HEATTSW-2240-R	HEATTLW-2016-R	HEATTLW-1050-R	HEAMISL-1000-R
Yellow	HEATTSW-2240-Y	HEATTLW-2016-Y	HEATTLW-1050-Y	HEAMISL-1000-Y
Rainbow*	HEARNBW-3100	HEARNBW-3000	HEARNBW-3200	HEARNBW-3300

\*Rainbow 4 sheets of each Blue, Green, Orange, Red, Yellow

- Label sheets are top coated and heat-resistant to prevent jams in laser printers
- Printer formatting instruction included







# Neptune & Olympus Plastics™ brand Plates

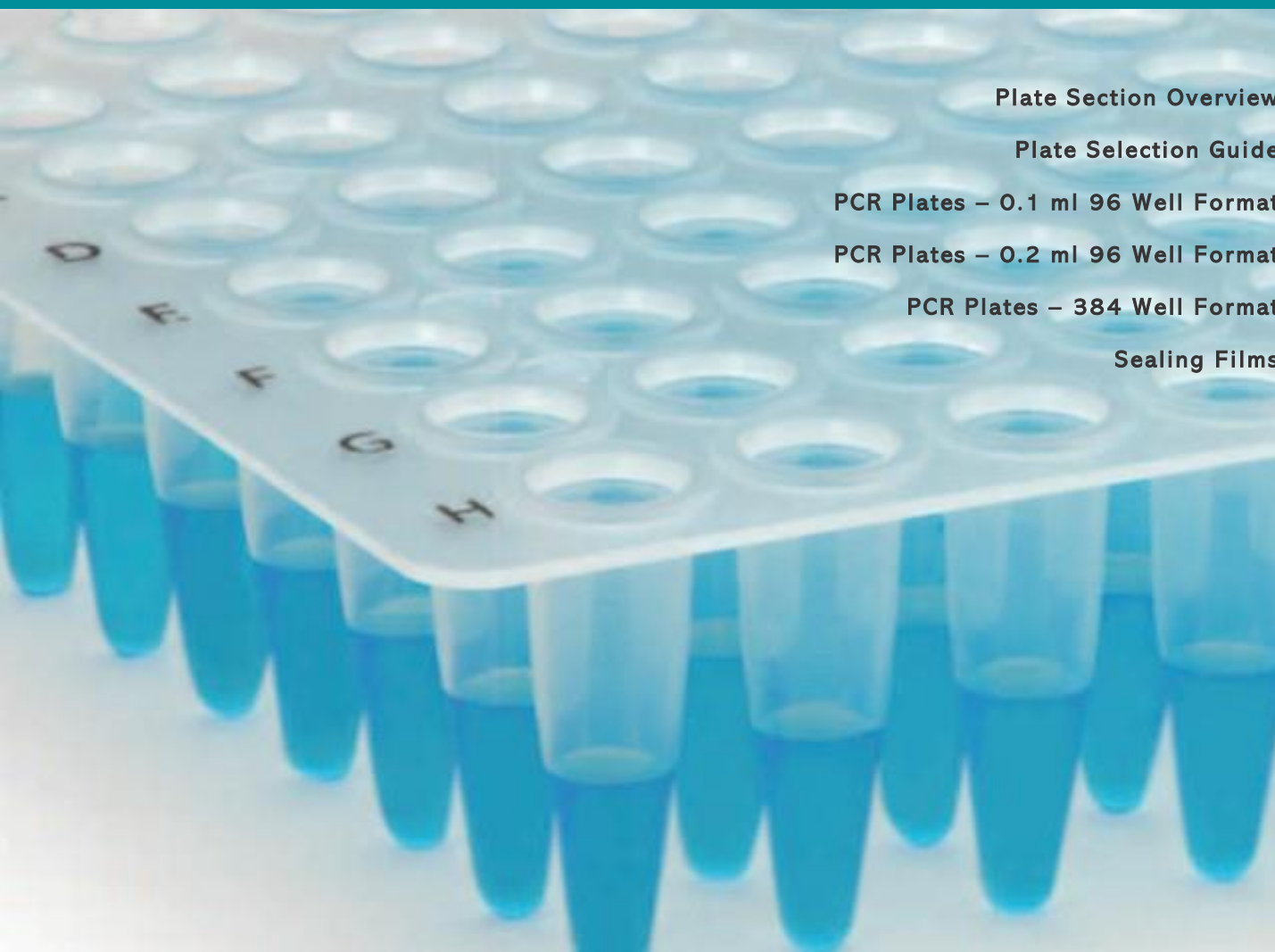


Plate Section Overview

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Plate Selection Guide

Page 205

PCR Plates – 0.1 ml 96 Well Format

Pages 206-207

PCR Plates – 0.2 ml 96 Well Format

Pages 208-214

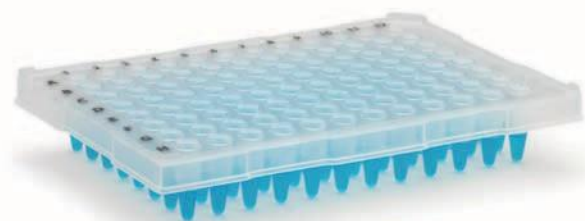
PCR Plates – 384 Well Format

Page 215

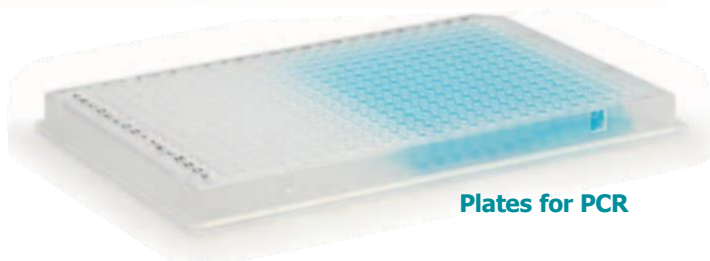
Sealing Films

Pages 216-218





Plates for PCR



QPCR Plates



Plate Seals

CLP offers a complete line of plates for high throughput PCR and related lab procedures. All PCR plates are molded from high performance polypropylene and feature precision formed thin walls for efficient heat transfer. Plates are available with optional color-coding in both a skirted and non-skirted version for use with robotic handling equipment. For researchers that like the working volume of a tube but prefer the convenience of a plate we offer a chimney stack version of our popular 96 well plate. Compatible with many of the latest thermal cyclers on the market, our Neptune™ brand PCR plates are available in both a 96 and 384 well format with optional sterility. Please refer to our plate selection chart for specific thermal cycler compatibility.

For larger working volumes, we offer a line of Neptune™ brand specialty plates. These plates are designed with working volumes greater than 0.65ml and are ideal for cell culture and storage applications. Our 1ml plate is ideal for archiving and sample storage, as well as use as a mother plate in applications such as DNA sequencing and ELISAs. With our Neptune™ brand Megatiter™ plates you get the 96 well format with the largest working volume, a complete 2.2ml per well. All of our storage plates adhere to the SBS standards for footprint and are compatible with many of today's automated laboratory workstations.

Performing chemiluminescent, fluorescent or real-time procedures? CLP is proud to offer an opaque skirted thin walled polypropylene plate for such procedures. Available in both a 96 and 384 well format these plates are ideal for automated robotic systems and feature a corner cut mark for plate orientation as well as an easy to read alpha-numeric grid.

Neptune™ plastics are manufactured under stringent controls in an ISO 9001:2000 certified facility. During the manufacturing process the product is continually monitored to ensure quality and lot consistency. All of our sterile packaged products are electron beam irradiated in an electronically controlled process, and are tested by 14 day cultures to monitor pre and post irradiation bacterial and fungal bio-loads. Sterile products are certified RNase, DNase and pyrogen free.

The Neptune™ brand plate seals work with all of our plates forming seamless integration between research and storage. Please see individual product description pages for plate seal compatibility.

CLP is The Source for all of your plate needs.

Category	Catalog #	Description	Well Volume	Page No.
0.1 ml 96 Well	24-302	96 Well PCR Plate Full Skirted	0.1 ml	206
	24-310	96-Well PCR Plate 0.1 ml. FAST-type Low Profile	0.1 ml	206
	27-405	96-Well PCR Plates, Non-Skirted Low Profile	0.1 ml	207
0.2 ml 96 Well	3732.X	96 Well PCR Plate Skirted	0.2 ml	208
	3742.X	96 Well PCR Plate Semi Skirted	0.2 ml	209
	24-301	96 Well PCR Plate Semi Skirted Raised Rim	0.2 ml	210
	27-108	96 Well PCR Plate Semi Skirted Flat Rim	0.2 ml	210
	27-408	96 Well PCR Plate Semi Skirted Straight Sided	0.2 ml	211
	3730.X	96 Well PCR Plate Non Skirted Full Profile	0.2 ml	212
	24-300	96 Well PCR Plate Non Skirted Ultra Thin Wall	0.2 ml	213
	3438.X	96 Well PCR Plate Low Profile	0.2 ml	214
	27-105	96 Well PCR Plate Unskirted Chimney top style, Raised Wells	0.2 ml	214
384 Well	24-305	384 Well PCR Plate	0.03ml (30µl)	215
Sealing Film	Various	ThermalSeal RT (50µm polyester) & RTS (50µm polyolefin)	-----	216
	Various	FoilSeal Aluminium foil 19 mil thick Regular & Large	-----	216
	12-169	AlumaSeal II Sealing Film Non Sterile for PCR and Cold Storage	-----	217
	12-156	AlumaSeal 96 Sealing Film for PCR & Storage	-----	217
	12-168	ThermalSeal PCR Sealing Film Polypropylene	-----	218
	12-538	ThermalSeal A PCR Sealing Film Polypropylene	-----	218

**0.1ml 96-Well  
Full Skirt PCR Plate**  
Low Profile  
**A12 Cut Corner**



### 96-Well PCR Plate 0.1 ml. Full-Skirted Ultra Thin Wall, Natural, Olympus Plastics

- Ultra-thin wall for optimum heat transfer and higher yields
- Ultra clear, easy to visualize well contents
- Plates can be sealed with strip caps, sealing films or silicone sealing mats
- Bold, black alphanumeric indexing
- Certified free of detectable RNase, DNase and human DNA
- Made of 100% virgin polypropylene

Olympus 0.1ml Full-Skirted, Low Profile 96-well PCR plates are compatible with most robotic platforms and are designed to SBS standards. These plates feature a low profile design that minimizes condensation and evaporation with less "dead space," a thin wall for maximum heat transfer efficiency and bold lettering on the surface of the plate to allow for easy well identification. Fits most popular thermal cyclers including MJ and Biorad.

Certified RNase, DNase, PCR Inhibitor, Human DNA & Pyrogen Free. Available in Natural, Red, Blue, Green, Yellow, Purple, Black and White. Simply add the first letter of the color to the end of the catalog # or BK for black. For compatible strip caps, please see Cat# 24-306 and 24-309

**0.1ml  
Semi-Skirt PCR Plate**  
Low Profile FAST  
**A1 Cut Corner**



### 96-Well PCR Plate 0.1 ml. FAST-type Low Profile, Natural, Olympus Plastics

- Ultra-thin wall for optimum heat transfer and higher yields, 0.1ml wells
- Ultra clear, easy to visualize well contents
- Plates can be sealed with strip caps, sealing films or silicone sealing mats
- Bold, black alphanumeric indexing
- Certified free of detectable RNase, DNase and human DNA
- Made of 100% virgin polypropylene

The new 96-well FastPlate provides optimal performance on the new Fast PCR systems available from Applied Biosystems. The low profile design and thin walls reduce cycle times to as short as 25 minutes for a standard PCR reaction. The ultra-clear wells produce optimal signal intensity and feature 100µl working volume. PCR results in 25 minutes when used with the ABI 9800. Real-Time PCR results in 40 minutes when used with the ABI 7500.

The FastPlate is also compatible with most popular 96-well thermal cyclers such as ABI ViiA 7, StepOne Plus, 7500 Fast, MJ Research/Bio-Rad, Eppendorf, Thermo Hybaid, Techne, and Stratagene®. StepOnePlus, ViiA, QuantStudio and ABI PRISM are trademarks of Thermo Fisher. MicroAmp is a registered trademark of Applied BioSystems. Chromo 4, iCycler IQ, MyiQ, CFX Connect and iQ are trademarks of Bio-Rad Laboratories. LightCycler is a registered trademark of Roche Applied Science. For compatible strip caps, please see Cat# 24-306 and 24-309

## Ordering Information

Catalog #	Description	Pack Quantity
<b>24-302</b>	Natural	10 Plates/pack
<b>23-302W</b>	White	10 Plates/pack
<b>24-306</b>	8-Strip Flat Caps Optically Clear	125 Strips/unit
<b>24-309</b>	8-Strip Domed Caps Clear	125 Strips/unit

## Ordering Information

Catalog #	Description	Pack Quantity
<b>24-310</b>	Natural	10 Plates/pack
<b>23-310W</b>	White	10 Plates/pack

**0.1ml 96-Well  
Non-Skirted PCR Plate  
H12 Cut Corner**



**96-Well PCR Plates, Non-Skirted, 0.1ml Well Low Profile, Olympus Plastics**

- Low profile 0.1ml wells
- Certified RNase, DNase, DNA, endotoxin and PCR inhibitor FREE
- Fits CFX96 and other popular thermal cyclers
- Ultra-thin wall for optimum heat transfer and higher yields
- Ultra clear, easy to visualize well contents
- Bold, black alphanumeric indexing
- Certified free of detectable RNase, DNase and human DNA
- Made of 100% virgin polypropylene

Low Profile wells have a similar air volume between the well contents and the well lid. The reduced air volume means an oil overlay is not necessary and can dramatically improve yields in PCR. For compatible strip caps, please see Cat# 24-306 and 24-309. Certified RNase, DNase, DNA and PCR inhibitor free.

**Ordering Information:**

Catalog #	Description	Pack Quantity
<b>27-405</b>	Natural	20 Plates/pack
<b>24-306</b>	8-Strip Flat Caps Optically Clear	125 Strips/unit
<b>24-309</b>	8-Strip Domed Caps Clear	125 Strips/unit





### Skirted 96 Well PCR Plate

Our Neptune™ brand skirted 96 well PCR plate is designed to meet SBS standards and work in automated robotic systems. The low profile and thin wall design minimizes condensation and evaporation associated with dead space while providing efficient heat transfer. Crisp and bold black printing makes sample identification easy to read and locate. The plate features an area for labeling or bar-coding to facilitate plate identification. Plate is compatible with a majority of the thermal cyclers on the market.

#### Features:

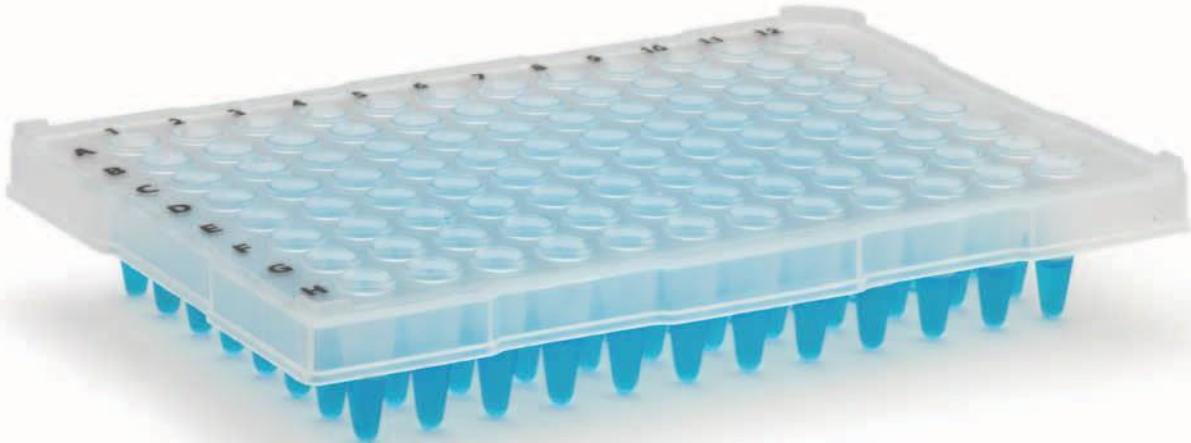
- Meets robotic automation standards
- Compatible with many of the thermal cyclers on the market
- Bold lettering for easy identification
- Area on skirt for plate labeling and bar-coding
- Autoclavable (121°C for 15 minutes at <15psi)

#### Technical Specifications

- Well Volume: 0.2ml (200µl)
- Well Height: 0.570 inches (14.48mm)
- Wall thickness (well): 0.015 inches (0.381mm)
- Well spacing: 0.00059 inches (9mm) center to center

#### Ordering Information

Catalog #	Description	Pack Quantity
<b>3732.X</b> <b>63300628</b>	Fully Skirted Plate	10 Plates/pack
<b>3731.X</b> <b>63300627</b>	8 strips caps for PCR Plates	125 strips



Semi-Skirted 96 Well PCR Plate

Our new Semi-Skirted 96 Well PCR plate is compatible with a variety of thermal cyclers on the market, but was specifically designed for use with Applied Biosystems™ thermal cyclers and DNA sequencers. Incorporating a thin wall tube design for efficient heat transfer. Bold lettering allows for easy well identification and the plates skirt allows for bar coding and plate labeling. The plate features a raised rim design along the perimeter for alignment of purification plates.

Features:

- ABI™ compatible
- Robotic system compatible
- Area on skirt for bar-code labeling
- Alpha-numeric grid for well identification
- Compatible with many of the thermal cyclers on the market
- Autoclavable (121°C for 15 minutes at <15psi)

Ordering Information

Technical Specifications

Catalog #	Description	Pack Quantity
3742.X 63300634	Semi-Skirted 96 Well PCR Plates	10 Plates/pack 10 pack/case
3731.X 63300627	8 Strip Caps for PCR Plates	12 strps/pk; 10 pks/cs

- Well Volume: 0.2ml (200µl)
- Well Height: 0.59 inches (14.99 inches)
- Wall thickness (well): 0.015 inches (0.381mm)
- Well spacing: 0.00059 inches (9mm) center to center

### 0.2ml 96-Well Semi-Skirt PCR Plate Raised Rim A12 Cut Corner



### 96-Well PCR Plate, Semi-Skirted Raised Rim, Natural, 25 Plates/Unit OLYMPUS PLASTICS 24-301

- 96-Well Semi-Skirted, Raised Rim: Compare to ABI MicroAmp-style Optical Plate
- Ultra-thin wall for optimum heat transfer and higher yields, 0.2ml wells
- Ultra clear, easy to visualize well contents
- Plates can be sealed with strip caps, sealing films or silicone sealing mats
- Bold, black alphanumeric indexing
- Certified free of detectable RNase, DNase and human DNA
- Made of 100% virgin polypropylene

Olympus 0.2ml Semi-Skirted 96-well PCR plates are compatible with a variety of thermal cyclers on the market, but were specifically designed for use with Applied Biosystems thermal cyclers and DNA analyzers. The plate design incorporates a thin wall for maximum heat transfer efficiency, a raised rim around the plate perimeter, bold lettering on the surface of the plate to allow for easy well identification and a semi-skirt that allows for bar coding, robotic handling and plate labeling. Compatible with ABI 3100-7900 series, PE 9600 & 9700, and Eppendorf. Compatible with ABI PRISM 7700 and 7900 sequence detection systems. For compatible optical sealing films see catalog number 12-529 and 12-537. NOT for use with the ABI 3730, refer to item 27-408 for compatible plate in the ABI 3730.

Certified RNase, DNase, PCR Inhibitor, Human DNA & Pyrogen Free. For compatible strip caps, please see Cat# 24-306 and 24-309

### 0.2ml 96-Well Semi-Skirt PCR Plate Flat Rim A12 Cut Corner



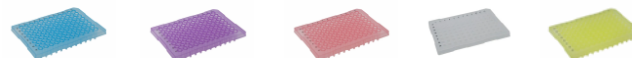
### 96-Well PCR Plate, Semi-Skirted Flat Rim, Natural, Olympus Plastics

- 96-Well Semi-Skirted, Flat-Top, 0.2ml wells
- Compatible with ABI, Techne, Thermo Hybaid and other popular thermal cyclers
- ABI style plate, no raised rim perimeter
- Ultra-thin wall for optimum heat transfer and higher yields
- Ultra clear, easy to visualize well contents
- Bold, black alphanumeric indexing
- Certified free of detectable RNase, DNase and human DNA
- Made of 100% virgin polypropylene

Perfect fit for all ABI PCR machines and sequencers. Single cut corner at position A12. For identical plate with raised rim perimeter see catalog number 24-301. For compatible strip caps, please see Cat# 24-306 and 24-309.

**Available in colors:** Blue, Green, Purple, Red, White & Yellow.

Olympus PCR plates are synonymous with quality, consistency and reliability. Wherever there is a need for handling greater sample numbers, Genesee Scientific multiwell PCR plates are ready to give you dependable performance and results.



\*Also available in colors Simply add the first letter (s) of the color to the end of the Cat # Assorted, **B**lue, **G**reen, **P**urple, **R**ed, White & **Y**ellow.

## Ordering Information

Catalog #	Description	Pack Quantity
<b>24-301</b>	96-Well PCR Plate, Semi-Skirted Raised Rim	25 Plates/Unit
<b>24-306</b>	8-Strip Flat Caps Optically Clear	125 Strips/unit
<b>24-309</b>	8-Strip Domed Caps Clear	125 Strips/unit

Catalog #	Description	Pack Quantity
<b>27-108*</b>	96-Well PCR Plate, Semi-Skirted Flat Rim Natural	10 Plates/Unit
<b>24-306</b>	8-Strip Flat Caps Optically Clear	125 Strips/unit
<b>24-309</b>	8-Strip Domed Caps Clear	125 Strips/unit

**0.2ml 96-Well  
Semi-Skirt PCR Plate**  
Straight Sided  
**A12 Cut Corner**

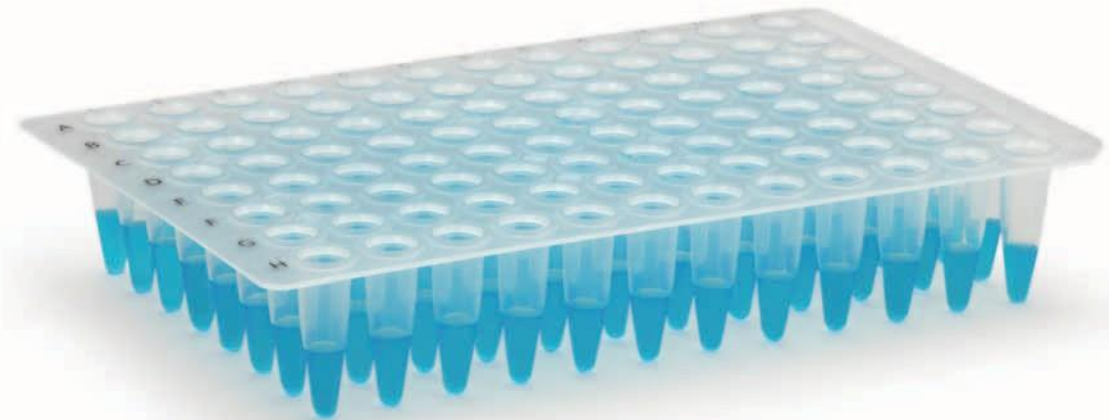


**96-Well PCR Plate, Semi-Skirted Straight-Sided, Natural, Olympus Plastics**

- Most universal style plate
  - Also fits iCyclers
  - Made of 100% virgin polypropylene
  - Ultra-thin wall for optimum heat transfer and higher yields
  - Ultra clear, easy to visualize well contents
  - Bold, black alphanumeric indexing
  - Certified free of detectable RNase, DNase and human DNA
  - Made of 100% virgin polypropylene
- Fits most popular thermal cyclers including ABI 3730 models and Bio-Rad iCycler. For compatible strip caps, please see Cat# 24-306 and 24-309. Olympus PCR plates are synonymous with quality, consistency and reliability. Wherever there is a need for handling greater sample numbers, Genesee Scientific multiwell PCR plates are ready to give you dependable performance and results.

### Ordering Information

Catalog #	Description	Pack Quantity
<b>27-408</b>	96-Well PCR Plate, Semi-Skirted Straight-Sided, Natural	10 Plates/Unit
<b>24-306</b>	8-Strip Flat Caps Optically Clear	125 Strips/unit
<b>24-309</b>	8-Strip Domed Caps Clear	125 Strips/unit



Non-skirted Full Profile PCR Plate

NEPTUNE's non-skirted 96 well PCR plate is molded to a standard size 8 x 12 grid design making it compatible with many of the 96 well thermal cycler blocks on the market. A thin wall design ensures efficient cycling times resulting in high quality PCR reactions. The plate design incorporates raised rims to ensure a complete seal. Plate can be easily cut into strips or a variety of other configurations to meet your research needs.

Features

- Bold printing for easy identification
- Easily cut - Plate can be customized for strip use
- Raised rim design for efficient plate sealing
- Autoclavable (121°C for 15 minutes at <15psi)
- Compatible with many thermal cyclers on the market

Technical Specifications

- Well Volume: 0.2ml (200µl)
- Well Height: 0.880 inches (22.35mm)
- Wall thickness (well): 0.015 inches (0.381mm)
- Well spacing: 0.00059 inches (9mm) center to center

Related Products

Genesee Scientific™ brand  
Silicone PCR Sealing Mats

Offer a quick and reliable method for sealing 96 well PCR plates  
Catalog #  
See page



Ordering Information

Catalog #	Description	Color	Type	Qty/pack
3730.X	Non-Skirted 96 Well PCR Plates	Clear	Non Sterile	10





### 0.2ml 96-Well Non-Skirted PCR Plate A12 Cut Corner

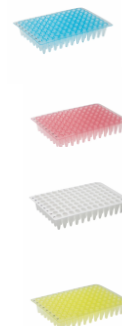


### 96-Well PCR Plate, Non-Skirted Ultra Thin Wall, OLYMPUS PLASTICS

- 96-Well Non-Skirted, Flat-Top, 0.2ml wells
- Ultra-thin wall for optimum heat transfer and higher yields
- Ultra clear, easy to visualize well contents
- Plates can be sealed with strip caps, sealing films or silicone sealing mats
- Bold, black alphanumeric indexing
- Certified free of detectable RNase, DNase and human DNA
- Made of 100% virgin polypropylene

Olympus 0.2ml Non-Skirted 96-well PCR plates are compatible with a variety of 96 well thermal cycler blocks on the market, in particular ABI GeneAmp 5700-9700, Prism, MJ, Eppendorf and BioRad. The plate design incorporates slightly raised rims around the wells to ensure a complete seal, a thin wall for maximum heat transfer efficiency and bold lettering on the surface of the plate to allow for easy well identification. Certified RNase, DNase, PCR Inhibitor, Human DNA & Pyrogen Free.

\*Available in Natural, **Red**, **Blue**, **Green**, **Yellow** and White. Simply add the first letter of the color to the end of the catalog # or BK for black. For compatible strip caps, please see Cat# 24-306 and 24-309



## Ordering Information

Catalog #	Description	Pack Quantity
<b>24-300*</b>	96-Well PCR Plate, Non-Skirted Ultra Thin Wall	10 Plates/Unit
<b>24-306</b>	8-Strip Flat Caps Optically Clear	125 Strips/unit
<b>24-309</b>	8-Strip Domed Caps Clear	125 Strips/unit



### Low Profile 96 Well PCR Plate

This plate is ideal for users who prefer an non-skirted style plate that can be customized. Molded from virgin polypropylene this plate can be cut in strip formats for runs that do not require 96 reactions. Plate features an easy to read alphanumeric grid and thin walled tube design. Please see chart on page 147-148 for complete thermal cycler compatibility.

#### Features:

- Easy to read alpha-numeric grid
- Easily cut - Plate can be customized for strip use
- Autoclavable (121°C for 15 minutes at <15psi)

### 96-Well PCR Plate Unskirted Chimney top style 0.2 wells, Raised Wells, 10 Plates/Unit Olympus Plastics 27-105

- Ultra-thin wall for optimum heat transfer and higher yields
- Ultra clear, easy to visualize well contents
- Plates can be sealed with strip caps, sealing films or silicone sealing mats
- Bold, black alphanumeric indexing
- Certified free of detectable RNase, DNase and human DNA
- Made of 100% virgin polypropylene

This plate has no side skirt and the top of each well stands approximately 5 mm up from the plate matrix. For compatible strip caps, please see Cat# 24-306 and 24-309.

Genesee Scientific multiwell PCR plates are ready to give you dependable performance and results.

### Ordering Information

Catalog #	Description	Pack Quantity
<b>3438.X</b> 63300617	96-Well PCR Plate, Non-Skirted Ultra Thin Wall	20 plts/pk; 5 pks/cs

Before	Catalog #	Description	Pack Quantity
3439	<b>27-105</b>	96-Well PCR Plate Unskirted Chimney top style 0.2 wells, Raised Wells	10 Plates/unit

### Technical Specifications

- Well Volume: 0.2ml (200µl)
- Well Height: 0.880 inches (22.35mm)
- Wall Thickness (well): 0.015 inches (0.381mm)
- Well Spacing: 0.00059 inches (9mm) center to center





**384-Well PCR Plate, Clear A24 Cut Corner, 50 Plates/Unit  
Olympus Plastics 24-305**

- 384-Well PCR Plates, One-Notch type
- Ultra-thin wall for optimum heat transfer and higher yields
- Ultra clear, easy to visualize well contents
- Plates can be sealed with strip caps, sealing films or silicone sealing mats
- Bold, black alphanumeric indexing
- Certified free of detectable RNase, DNase and human DNA
- Made of 100% virgin polypropylene

Olympus 30ul 384-Well PCR plates are compatible with most robotics and have been optimized for ABI cyclers and sequencers. They are designed to SBS standards, have a rigid skirt for gripping by robotic plate handlers, a single cut corner notch at the A24 position, a thin wall for maximum heat transfer efficiency and bold lettering on the surface of the plate to allow for easy well identification. Plates show minimal warp and shrinkage after thermal cycling.  
Available in natural and white colors.

Technical Specifications

- Well Volume: 0.03ml (30µl)
- Well Height: 0.37 inches (9.40mm)
- Wall Thickness (well): 0.015 inches (0.381mm)
- Well Spacing: 0.177 inches (4.5mm) center to center

Ordering Information

Catalog #	Description	Pack Quantity
24-305	384-Well PCR Plate, Clear A24 Cut Corner	50 Plates/Unit
24-305-W	384-Well PCR Plate, White A24 Cut Corner	10 Plates/Unit



Compare RTS to  
 Micro Amp®  
 Optical Adhesive  
 Film!  
 ABI # 4311971



### ThermalSeal® RT™ & RTS™

#### For Real-Time PCR (qPCR)

- Exceptional optical clarity
- 50µm polyester (RT), 50µm polyolefin (RTS)
- Non-fluorescing, medical-grade adhesive
- RTS film is non-tacky until pressed to plate surface
- Temperature range: -40°C to +120°C (RT), -80°C to +105°C (RTS)
- Certified DNase, RNase and nucleic-acid free

#### Ordering Information:

Catalog #	Description	Pack Quantity
<b>12-537</b>	ThermalSeal RTS (Non-Tacky)	100 Films
<b>12-537S</b>	ThermalSeal RTS (Non-Tacky), Sterile	50 Films
<b>12-170</b>	ThermalSeal RT - For Raised Rim Plates	100 Films
<b>12-529</b>	ThermalSeal RT - Fits All Plates	100 Films

### eXTreme™ FoilSeal™ Film

#### For All Your Foil Needs

- Excellent chemical resistance
- 1.9mil thick aluminum foil minimizes shredding during removal
- Pierceable with pipet tips and robotic probes
- Temperature range: -80°C to +120°C
- Large cut provides greater plate coverage and edge seal
- Designed for greater coverage
- More complete seal around the edges reduces evaporation
- Foil will remove cleanly from plate surfaces with no adhesive stringing or residue
- Pierceable with pipet tips and robotic probes for direct sample retrieval
- Single end-tab features a custom perforation that will not tear during removal
- Excellent chemical resistance (DMSO). Recommended for deep well plates
- eXTreme™ and FoilSeal™ are trademarks of Excel Scientific
- eXTreme™ FoilSeal™ Films offer high performance under extreme conditions. Ideal for long-term compound storage, light sensitive assays and robotics. Temperature Range: -80°C to +120°C. Certified DNase- and RNase-Free
- Specially formulated adhesive provides an excellent seal for all plate materials (e.g. polystyrene, polypropylene and two component polycarbonate/polypropylene PCR plates). Foil will remove cleanly from plate surfaces with no adhesive stringing or residue.

#### Ordering Information:

Catalog #	Description	Pack Quantity
<b>12-156</b>	Regular Cut	100 Films
<b>12-158</b>	Large Cut	100 Films



### AlumaSeal II Sealing Film, Non-Sterile For PCR and Cold Storage, GENESSEE SCIENTIFIC

36 µm soft, non-permeable aluminum foil sealing film with 36µm strong medical-grade adhesive

- Eliminate the need for heat-sealing devices or mats during thermal cycling
- Easily pierceable with single or multichannel pipettors and robotic probes
- Heat & cold resistant, recommended for temperatures from -80 °C to +120 °C
- Excellent barrier properties, virtually no sample evaporation or drying
- AlumaSeal is a registered trademark of Excel Scientific

#### Description

A 1.4mil soft, non-permeable aluminum foil with strong medical-grade adhesive, AlumaSeal® II™ film eliminates the need for heat-sealing devices or mats during thermal cycling. Compared to other aluminum foils, AlumaSeal® II™ has less tendency to roll back on itself when removing the backing paper and conforms well to the plate during application.

AlumaSeal® II™ films exhibit excellent barrier properties, with virtually no sample evaporation or drying and are also easily pierceable with single or multichannel pipettors and robotic probes. They are heat & cold resistant, with a functional temperature range from -80°C to +120°C.

#### Ordering Information:

Catalog #	Description	Pack Quantity
12-169	AlumaSeal II Sealing Film, Non-Sterile For PCR and Cold Storage	100 Films



### AlumaSeal 96 Sealing Film For PCR & Storage, Excel Scientific F-96-100

•38 µm thick aluminum foil sealing film for use with 96-well raised rim plates

- Heat & cold resistant, recommended for temperatures from -80 °C to +120 °C
- One partial-width end tab with no perforations. Pierceable.
- Certified DNase-, RNase-, and nucleic-acid-free
- AlumaSeal 96 is a trademark of Excel Scientific

AlumasSeal® 96sealing films are a 38µm soft non-permeable aluminum foil film with strong medical-grade adhesive. AlumasSeal® 96 films eliminate the need for heat-sealing devices or mats during thermal cycling. AlumaSeal® 96 films are heat & cold resistant, recommended for temperatures from -80 °C to +120 °C and are certified DNase, RNase, and nucleic-acid-free. Compared to other aluminum foils, AlumaSeal® 96 has less tendency to roll back or itself when removing the backing paper and conforms well to the plate during application.

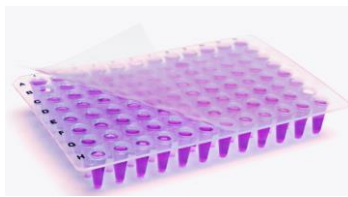
AlumaSeal 96™ films have one partial-width end tab with no perforations and fit inside the rim of raised-rim plates. Available non-sterile only. Film dimensions are 3.063 x 4.625 eXTReme™ FoilSeal™ Films offer high performance under extreme conditions. Ideal for long-term compound storage, light sensitive assays, and robotics.

Specially formulated adhesive provides an excellent seal for all plate materials (e.g. polystyrene, polypropylene and two component polycarbonate/polypropylene PCR plates). Foil will remove cleanly from plate surfaces with no adhesive stringing or residue.

#### Ordering Information:

Catalog #	Description	Pack Quantity
12-156	AlumaSeal 96 Sealing Film For PCR & Storage	100 Films





### ThermalSeal PCR Sealing Film, Non-Sterile 50µm, Polypropylene Excel Scientific 100-THER-PLT

- 50 µm heat-resistant polypropylene sealing film designed for thermal cycling applications.
- Recommended for temperatures -40°C to +120°C
- Easier to apply than aluminum foils, no tendency to roll back
- ThermalSeal sealing films are not pierceable
- Certified DNase-, RNase-, and nucleic-acid-free
- ThermalSeal® is a registered trademark of Excel Scientific

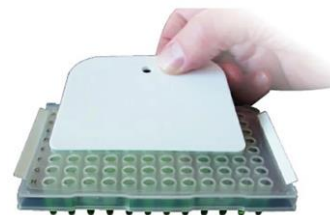
#### Description

Each film measures 3.125 x 5.425 inches and offers sufficient sealing area for all PCR plates. Certified DNase, RNase and nucleic acid free.

ThermalSeal® films are not pierceable. For applications where piercing with pipet tips or robotic probes is required for product recovery, see AlumaSeal II™ films. For real-time PCR applications where maximum optical clarity is required, see ThermalSeal RT™ or ThermalSeal RT2RR™.

#### Ordering Information:

Catalog #	Description	Pack Quantity
<b>12-168</b>	ThermalSeal PCR Sealing Film, Non-Sterile 50µm, Polypropylene Excel Scientific 100-THER-PLT	100 Films



### ThermalSeal A PCR Sealing Film, Non-Sterile 50µm Film for PCR, Excel Scientific TSA-100

- 50µm heat-resistant polypropylene sealing film designed for thermal cycling applications
- Heat resistant, recommended for temperatures from -40 °C to +120 °C
- Compatible with raised-rim PCR plates and standard plates
- Better adhesion; reduced evaporation
- Two end tabs, perforated for easy removal
- Certified DNase-, RNase-, and nucleic-acid-FREE
- ThermalSeal® is a registered trademark of Excel Scientific

#### Description

ThermalSeal® A™ is a 2 mil (50µm) heat-resistant polypropylene film designed for thermal cycling applications. ThermalSeal® A™ films are now produced with a slightly stronger adhesive than the original product for better adherence to plates. Each film measures 3.083 x 4.65 inches and offers sufficient sealing area for all PCR plates. Certified DNase, RNase and nucleic acid free.

ThermalSeal® films are not pierceable. For applications where piercing with pipet tips or robotic probes is required for product recovery, see AlumaSeal II™ films. For real-time PCR applications where maximum optical clarity is required, see ThermalSeal RT and RTS.

#### Ordering Information:

Catalog #	Description	Pack Quantity
<b>12-538</b>	ThermalSeal A PCR Sealing Film, Non-Sterile 50µm Film for PCR, Excel Scientific TSA-100	100 Films

# Biotix™ brand Pipettors



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**Electronic Pipettors**



**Single & Multi Channel Pipettors**



**Serological Pipettes**



**Combi-syringes**



**Pipette Aid**

CLP offers a wide range of products to service your liquid handling needs. Poseidon™ brand products are manufactured to CLP's highest quality standards and are offered with a 30-day money back guarantee.

Our Poseidon™ brand Beta-Pette™ pipettors are available in single and multi channel versions. These pipettors deliver the accuracy and precision that is demanded in everyday lab work. The Beta-Pette™ incorporates a universal shaft design that allows for the widest range of pipette tip fit. CLP also offers a complete selection of calibration and repair services to keep your pipettor in prime operating condition.

The Poseidon™ brand electronic pipettor is designed for comfort to minimize fatigue and is ideal for labs that require repetitive sample delivery. It features automatic calibration and 9 user-defined program settings. Available with an optional 8-channel manifold this unit is ideal for high volume microtiter plate work.

For accurate delivery during long cycles of routine pipetting CLP offers the Easy Step™ Repeat Pipettor. Its increased volume capacity through the use of combi syringes allows for multiple deliveries of volumes ranging from 0.5µl to 20ml.

For applications requiring serological pipettes, CLP offers both a manual and electronic pipetting aid. Both units feature a lightweight comfortable design for left and right handed users. With a working volume range of 1ml to 100ml, these units work with most common size serological pipettes.

All of our Poseidon™ instruments feature a one-year warranty against defects in materials and workmanship.

### Single- and Multi-channel Electronic Pipettors

The Labnet Excel™ is an ergonomic, intuitive electronic pipettor for use in most laboratory applications. Its high precision stepping motor controls piston action, resulting in exceptional accuracy and precision. Lightweight construction and ergonomic design with comfortable finger hook further reduce the risk of repetitive stress injuries. The pipettors are powered by rechargeable Li-ion battery allowing for 2,000 pipetting cycles after fully charged. The Excel helps to optimize every lab work with functions such as multi-dispensing, serial dilution and mixing, easily navigated through the user-friendly interface. Available in single-, 8- and, 12-channel configurations, the Excel pipettors feature adjustable tip ejector along with wide tip compatibility. The Labnet Excel multi-channel pipettors are ideal for working with a 96-well format. Each pipettor is individually tested and supplied with a certificate of quality.

- Factory calibrated to strict ISO8655 standard
- Large LCD screen and simple interface
- Ergonomically designed handle and finger rest
- Lower portion easily removed for autoclaving
- Rechargeable Li-ion battery

#### • Motorized Piston Drive

Excel Electronic Pipettes are fully motorized, ensuring reproducibility and reducing pipetting forces. A micro-processor tightly controls operation of the high precision stepping motor to within 1/20th of a revolution. This ensures accurate, reproducible piston movement. Between pipetting steps, the zero position of the piston is verified - the calibration of the unit is checked each time an operation is performed. Activation of the piston requires minimal force, reducing operator fatigue.

#### • Simple Operation

Programming the pipettor is accomplished with the four soft pads on the face of the instrument. The face slants away from the user for easy access to the keypad and viewing of the large LCD. User friendly software guides the operator through the programming. For convenience, as many as nine sets of operating parameters may be stored in memory for future recall. A graphical interface shows the status of the system and prompts the user for action.

Parameters such as aspirating and dispensing speed, audible signals and an ejection alarm are easily set. A blow-out step after dispensing may be added or removed.

Proper operation of the system is ensured by self diagnostics in the software. Accuracy of pipetting volume, battery charge status and the auto-calibration function are constantly monitored.

#### • Ergonomic Design

The body of the Labnet Excel Electronic Pipette has been designed to fit comfortably in the right or left hand. Along with being lightweight, the unit is also well balanced. The plunger button, located on the back side of the instrument, requires just a small movement of the index finger to activate, reducing the risk of Repetitive Strain Injuries (RSI). The tip ejector slides easily with light pressure from the thumb.



#### • Multifunctional

Multiple operating modes allow the Labnet Excel Electronic Pipettes to perform a variety of functions in addition to standard pipetting. Using the keypad and graphical interface, each of the modes is easily accessed and parameters entered. In the "AUTO" mode, the volumes to be aspirated and dispensed for standard and reverse pipetting are selected. "MD" mode is selected for multiple dispensing operations. Samples can be aspirated and dispensed repeatedly in the "MIX" mode. "AUTO/MIX" makes serial dilutions quick and easy. Sequential dispensing ("SD") allows for a large volume to be drawn up and smaller aliquots of different volumes to be dispensed. With sequential aspiration ("SA") a number of samples can be drawn up with air spaces in between to prevent mixing and then dispensed all at once.

### • Single or Multichannel

Labnet Excel Electronic Pipettes are available in four overlapping volume ranges from 0.5 µl to 1200 µl. Each range is provided in single, eight and twelve channel versions. The single channel models have a reduced diameter shaft for reaching into narrow tubes. The manifolds of the multichannel models rotate for comfortable pipetting in any direction.

For sterility, the lower portion of the pipettes is easily removed for autoclaving. Durable seals in both the single and multichannel pipettors provide leakproof performance. Tip cones are made from PVDF for added durability and chemical resistance and the tip ejectors are adjustable to accommodate a variety of tip types.

### • Rechargeable Power

A small, rechargeable, Lithium-ion battery powers the Labnet Excel Electronic Pipettes. A graphic on the display indicates the charge status of the battery. When recharging is required, the unit is simply connected to the supplied charging adapter and plugged into an electrical outlet. A complete charge is achieved in 8 hours. To ensure a fresh battery is always available, a stand-alone charger and extra batteries are available.

### Ordering Information

	Catalog #	Description
Single Channel	<b>P3600L-10</b>	Labnet Excel Electronic Pipette, 0.5 - 10 µl, single channel, with charger, 120V
	<b>P3600L-20</b>	Labnet Excel Electronic Pipette, 2 - 20 µl, single channel, with charger, 120V
	<b>P3600L-200</b>	Labnet Excel Electronic Pipette, 10 - 200 µl, single channel, with charger, 120V
	<b>P3600L-1200</b>	Labnet Excel Electronic Pipette, 100 - 1200 µl, single channel, with charger, 120V
8 Channel	<b>P3608L-10</b>	Labnet Excel Electronic Pipette, 0.5 - 10 µl, eight channel, with charger, 120V
	<b>P3608L-20</b>	Labnet Excel Electronic Pipette, 2 - 20 µl, eight channel, with charger, 120V*
	<b>P3608L-200</b>	Labnet Excel Electronic Pipette, 10 - 200 µl, eight channel, with charger, 120V*
	<b>P3608L-1200</b>	Labnet Excel Electronic Pipette 100 - 1200 µl, eight channel, with charger, 120V*
12 Channel	<b>P3612L-10</b>	12 Channel Labnet Excel Electronic Pipette, 0.5 - 10 µl, twelve channel, with charger, 120V*
	<b>P3612L-20</b>	Labnet Excel Electronic Pipette, 2 - 20 µl, twelve channel, with charger, 120V*
	<b>P3612L-200</b>	Labnet Excel Electronic Pipette, 10 - 200 µl, twelve channel, with charger, 120V*
	<b>P3612L-1200</b>	Labnet Excel Electronic Pipette, 100 - 1200 µl, twelve channel, with charger, 120V*
Accessories	<b>P3600-BAT</b>	Extra Lithium-ion battery, for all voltajes
	<b>P3617L-CS</b>	Optional charger set w/charger, charging adapter, extra battery, 120V
	<b>P3628L</b>	Shelf clip for Labnet Excel Electronic Pipette, holds 1
	<b>P3630L</b>	Acrylic stand for Labnet Excel Electronic Pipette holds 3
	<b>P3935L</b>	Carousel stand for Labnet Excel Electronic Pipette, holds 6

### Specifications:

Volume Range	Channels	Increments	Accuracy (%)	Precision (%)	Channels	Accuracy (%)	Precision (%)
0.5 - 10 µl	1	0.1 µl	±4.0 to ±1.0	<2.5 to <0.4	8 & 12	±4.0 to ±1.5	<2.5 to <0.5
2 - 20 µl	1	0.1 µl	±4.0 to ±1.0	<2.5 to <0.4	8 & 12	±4.0 to ±1.0	<2.5 to <0.5
10 - 200 µl	1	1.0 µl	±2.5 to ±0.6	<1.0 to <0.15	8 & 12	±3.0 to ±0.6	<1.0 to <0.15
10 - 1200 µl	1	1.0 µl	±2.5 to ±0.5	<0.6 to <0.15	8 & 12	±3.0 to ±0.5	<0.8 to <0.2





### xPIPETTE Single Channel Adjustable Volume Pipettes

Patented ejection technology reduces fatigue and makes the xPIPETTE a top choice to improve your lab's ergonomics. Designed with durable and lightweight components to produce a precise and accurate liquid transfer while maintaining hand comfort.

- Calibrated to ISO 8655 standards with Biotix xTIP4 tips, also fully compatible with Rainin™ LTS™ pipette tips.
- Light spring forces produce a smooth and controlled aspiration with perfect balance
- Padded ejector button reduces the dynamic forces and vibrations your hand is exposed to during tip ejection
- Simple volume adjustment by turning the plunger

#### Ordering Information

Catalog #	Volume Range
<b>63300160</b>	0.2µl - 2µl
<b>63300161</b>	0.5µl - 10µl
<b>63300162</b>	2µl - 20µl
<b>63300163</b>	10µl - 100µl
<b>63300164</b>	20µl - 200µl
<b>63300327</b>	20µl - 300µl
<b>63300165</b>	100µl - 1000µl

Pipetting is a highly repetitive motion which can have lasting effects on your hand, wrist and shoulder. Biotix® xPIPETTE™ is designed to improve the ergonomics of traditional pipetting systems by reducing the forces you're exposed to during this repetitive process. The patented light force ejection system built into xTIP4 and xPIPETTE produce the lowest ejection forces on the market, reducing your risk of developing repetitive stress injuries and muscle fatigue.

#### Accurate, precise, and more ergonomic:

- When inserting a tip the pipette contacts the positive stop in xTIP4 pipette tips to create identical tip alignment and sealing every time
- Up to 5X less ejection force than traditional pipetting systems
- Low drag seals and light spring forces produce a smooth accurate draw with lighter force
- Easy to reach ejector button is cushioned to reduce dynamic stresses when ejecting a tip
- Volume lock ensures your measurements are accurate and precise without volume drift
- Designed to be rugged and durable for long term use with a low cost of ownership





### Biotix xPIPETTE™ Multi Channel Pipettors

The Biotix xPIPETTE multichannel achieves the highest standards for accuracy and precision while providing perfect balance and low operating forces. The positive stop technology keeps ejection forces low even on multichannel models. Engineered with light force springs and low drag seals to provide you a seamless draw and dispense.

- Calibrated to ISO 8655 standards with Biotix xTIP4 tips, also fully compatible with Rainin™ LTS™
- Available in 8- and 12-channel models
- Made with lightweight, durable materials for comfortable everyday use
- Accurate and precise measurements with low channel-channel variation
- Symmetrical design allows for easy left or right hand use without any adjustments

### Ordering Information

Catalog #	Volume Range	Catalog #
8 Channel		12 Channel
<b>63305170</b>	0.5 - 10µl	<b>63305174</b>
<b>63305171</b>	2.0 - 20µl	<b>63305175</b>
<b>63305172</b>	20 - 200µl	<b>63305176</b>
<b>63305173</b>	20 - 300µl	<b>63305177</b>

## Labpette™ R Repeating Laboratory Pipette



### Accurate Disposable Tips

The Labpette™ R Repeating Pipette provides accurate and reproducible repetitive pipetting from the single filling of a disposable tip. Use of the Labpette™ R saves time and reduces the fatigue associated with repetitive pipetting using a standard pipette.

- Looks and feels like a standard pipette
- Convenient tip selection chart located on body of pipette
- Maintenance free
- Use with Labnet BioFree™ Dispenser Syringe Tips

### 48 Pipetting Steps

Twenty nine different volumes between 1 µl and 5000 µl may be dispensed with this pipette. As many as 48 pipetting steps may be carried out without refilling the reservoir tip. Samples can be dispensed at intervals as fast as 1 second without compromising accuracy or reproducibility. The slender body of the Labpette™ R fits comfortably in the natural contour of your hand. The plunger is located on the top of the unit, like that of a standard pipette, for easy access and reduction of hand strain. The Labpette™ R is simple to use - select the appropriate tip and lock in place. Then choose the desired volume setting with the click stop adjustment dial and fill the tip with the required volume using the sliding fill lever. To dispense, depress the plunger. For convenience, a chart showing the volume dispensed for each tip size and dial position is located on the body of the pipette. The Labpette™ R performs best when used with Labnet's BioFree™ dispenser syringe tips. Available sterile or non-sterile, the tips are supplied in sturdy, stackable dispenser boxes of 100 tips

### Ordering Information

Before	Catalog #	Description	Adjustment Setting Number Dispensing				
9631	P3000	Labpette R Repeating Pipette for volumes 1µl to 5000µl	-	-	-	-	-
			1	2	3	4	5
- - -	P3505	Dial Position 0.05 ml syringe tip	1 µl	2 µl	3 µl	4 µl	5 µl
- - -	P3505-S						
9624.1	P3512	Dial Position 0.5 ml syringe tip	10 µl	20 µl	30 µl	40 µl	50 µl
9624.1S	P3512-S						
9624.2	P3515	Dial Position 1.25 ml syringe tip	25 µl	50 µl	75 µl	100 µl	125 µl
9624.2S	P3515-S						
9624.3	P3518	Dial Position 2.5 ml syringe tip	50 µl	100µl	150 µl	200 µl	250 µl
9624.3S	P3518-S						
9624.4	P3521	Dial Position 5.0 ml syringe tip	100 µl	200µl	300 µl	400 µl	500 µl
9624.4S	P3521-S						
9624.5	P3524	Dial Position 12.5 ml syringe tip	250 µl	500µl	750 µl	1000 µl	1250 µl
9624.5S	P3524-S						
- - -	P3525	Dial Position 25.0 ml syringe tip	500 µl	1000µl	1500 µl	2000 µl	2500 µl
- - -	P3525-S						
9624.6	P3527	Dial Position 50.0 ml syringe tip	1000 µl	2000µl	3000 µl	4000 µl	5000 µl
9624.6S	P3527-S						
9627	P3527-A	Adapter for 25ml & 50ml combi syringe	-	-	-	-	-
9624.A	P3535	Non-sterile combi syringe tip combo pack, 20 each of 0.5ml, 1,25ml, 2.5ml, 5.0ml and 12.5ml	-	-	-	-	-

## Safetypette™ Pipette Filler Jencons Scientific

with Three Colored Cones

Designed to reduce the strain associated with serial pipetting while providing simple, precise operation for right- and left-handed users.

- Reduces strain
- Ambidextrous
- Lightweight

Compatible with 1 to 100 ml blow-out and 'to deliver' pipettes.

As much as 65 ml can be aspirated from a single squeeze of the bulb. Aspiration and dispensation speed is precisely controlled with the simple thumb lever. A mini squeeze bulb evacuates blow out pipettes. Silicone pipette holder is washable and autoclavable. Weighs only 102 g, sits comfortably in either hand.

Supplied with replaceable integral 0.45 µm filter and mint, purple, pink, cones for color coding.



## Electronic Pipetting Aid

The electronic pipetting aid is lightweight and easy to use. The compact design and angled pipette holder facilitates use in laminar flow hoods. Features include finger tip controlled aspirating and dispensing speeds, a long lasting rechargeable battery and dual speed operation.

Works with all types of glass and plastic serological pipettes in the volume range of 1ml to 100ml.

### Features:

- Lightweight
- Comfortable grip
- Long lasting NiMH battery
- Dual speed control provides quick dispensing and measurement
- Contoured comfortable push
- Replaceable membrane filters contamination of the pipette



## Pipette Filler Ordering Information

Catalog #	Description
<b>75856-442</b>	Poseidon™ Safetypette™ Pipette Filler with set of 3 colored cones ( mint, purple & pink)

### Related Products

## Heathrow Scientific™ brand Storage

Pipette rack provide space efficiency and convenient access to your pipettes. *See page 258*



## Pipette Aid Ordering Information

Catalog #	Description
<b>P2000</b>	Poseidon™ Pipetting Aid, 115V
<b>P2023</b>	PTFE autoclavable filter, 0.2µm, pk of 5
<b>P2024</b>	PTFE autoclavable filter, 0.45µm, pk of 5
<b>P2021</b>	Silicone pipette holder insert for nosepiece
<b>P2028</b>	Wall hanger for FastPette

### Sterile, Individually Wrapped

Calibrated graduations that are accurate to dispensing within  $\pm 2\%$ .

- Color coded strips on each size pipet for easy identification
- Bidirectional and negative graduations
- Plugged with patented filter for excellent barrier protection
- Strict consistency tested for exceptional quality
- Certified DNase, RNase Free, Non-Pyrogenic and sterilized by Gamma Irradiation.

### Description

Gen Clone Pipets are printed with bold, calibrated, bidirectional graduations that are accurate to within  $\pm 2\%$ . All pipets feature printed color coded stripes on the pipet and are packaged in color coded paper/plastic wrap for quick identification on the shelf (individually wrapped pipets). Olympus pipets are also plugged with a patented filter which creates a barrier and performs better than standard cotton plugs. Olympus brand pipets are strict consistency tested, lot traceable and ideal for use in cell and tissue culture.

Gen Clone Pipets are manufactured in a class 100,000 clean room facility in compliance with ISO 9001:2008 and EN ISO 13485:2003/AC:2007. They are made from the highest quality optical grade polystyrene for clear observation, reduction of meniscus formation and complete liquid expulsion. All Olympus serological pipets are certified DNase, RNase Free, Non-Pyrogenic and are sterilized by Gamma Irradiation.



### Ordering Information

Before	Catalog #	Description	Presentation
2351	12-100	1.0 ml. Serological Pipets	200/Bag, 800 Pipets
2353	12-101	2.0 ml. Serological Pipets	150/Bag, 600 Pipets
2355	12-102	5.0 ml. Serological Pipets	50/Bag, 200 Pipets
2356	12-104	10 ml. Serological Pipets	50/Bag, 200 Pipets
2367	12-106	25 ml. Serological Pipets	50/Bag, 200 Pipets
2359	12-107	50 ml. Serological Pipets	30/Bag, 90 Pipets













### Disposable Transfer Pipettes

Poseidon™ brand disposable transfer pipettes are a safe alternative to the hazards of broken glass and contamination exposure commonly associated with glass pipettes. Product is made from low-density polyethylene, which is inert to biological fluids and most acids. The low affinity surface minimizes retention and reduces the loss of cells and proteins due to binding. Disposable transfer pipettes work well whenever there is a need for quick, safe transfer of fluids. Can be sealed and refrigerated. Product is available in non-sterile bulk packaging.

#### Features:

- Will not shatter or break
- Non-toxic and chemically inert
- Temperature resistant down to -196°C
- No bulb to insert or remove
- Uniform drop size
- Disposable: minimize cross contamination

#### Ordering Information

Transfer Pipette	Catalog #	Description (total volume)	Bulb Draw	Tube Length	Drops per ml	Quantity
	<b>P200-10</b> <b>P200-101S</b>	Transfer Pipette 1.2 ml Sterile individually packaged	0.9ml	6.3cm	25	500/pack 400/pack
	<b>P200-14</b> <b>P200-141S</b>	Transfer Pipette 1.5 ml Sterile individually packaged	0.8 ml	11.4cm	25	500/pack 400/pack
	<b>P200-20</b> <b>P200-201S</b>	Transfer Pipette 1.7 ml Sterile individually packaged	0.9ml	8.7cm	25	500/pack 400/pack
	<b>P200-30</b> <b>P200-301S</b>	Transfer Pipette 3.0 ml Sterile individually packaged	2.1ml	13.8cm	25	500/pack 400/pack
	<b>P200-44</b> <b>P200-441S</b>	Transfer Pipette 4.0 ml Sterile individually packaged	3.1ml	15.5cm	25	500/pack 400/pack
	<b>P200-52</b> <b>P200-521S</b>	Transfer Pipette 5.0 ml Sterile individually packaged	3.1ml	15cm	25	500/pack 400/pack
	<b>P200-56</b> <b>P200-561S</b>	Transfer Pipette 5.0 ml Sterile individually packaged	1.9ml	15.5cm	25	500/pack 400/pack
	<b>P200-58</b> <b>P200-581S</b>	Transfer Pipette 5.0 ml Sterile individually packaged	1.8ml	15.6cm	25	500/pack 400/pack
	<b>P200-58V</b> <b>P200-58V1S</b>	Transfer Pipette 5.0 ml Sterile individually packaged	1.8ml	14.5cm	25	500/pack 400/pack
	<b>P200-60</b> <b>P200-601S</b>	Transfer Pipette 6.0 ml, Sterile individually packaged	2.3ml	22.5cm	25	500/pack 400/pack
	<b>P200-72</b> <b>P200-721S</b>	Transfer Pipette 7.0 ml, Sterile individually packaged	3.2ml	15.5cm	22	500/pack 400/pack
	<b>P200-82</b> <b>P200-821S</b>	Transfer Pipette 8.0 ml, Sterile individually packaged	4.6ml	15.0cm	22	400/pack 400/pack



# Heathrow Scientific™ & Crystal Technologies brand Storage

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Stainless Steel Storage Units



Cardboard Boxes

Acrylic Storage Units



PCR Workstation



Microtube Racks



Freezer Storage Boxes

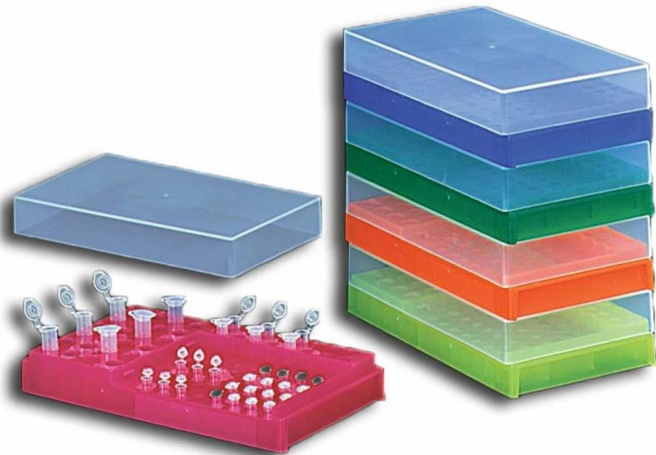
Storing samples, on your bench, in your refrigerator, or at  $-20^{\circ}\text{C}$  or lower, is a fundamental part of a laboratory process. The type of tubes you use, how many and for how long are all factors that affect your storage choice. Selecting the correct rack or box for your consumable type and then the right storage unit for the racks is easy with the Atlas™ storage guide.

Atlas™ brand storage racks are designed to hold a wide range of consumable types, from 0.2ml tubes to 50ml centrifuge tubes. A PCR

workstation holds consumables for PCR setup; use with our Continental Cooler to create an area specific for your needs. Our range of racks is accompanied by an expansive range of storage units to organize your freezer; we've got all you need to create an organized lab!

Selecting the correct storage unit for your consumable type is easy with our Rack & Storage Guide. Choices are either for a rack and a storage unit or in the case of 15ml and 50ml tubes, we have a storage unit that is a rack as well!

Consumable Type	Rack Description	Rack Catalog #	Page No.	Storage Choice	Page No.
0.2 ml	PCR Work-Up Rack	25-210	232	-----	-----
0.2-2.0 ml	Mini Becbtop Coolers	120070-120076	233	-----	-----
1.5-5 ml	Cryovial Rack	T315-2	234	-----	-----
13, 16 & 25-30 mm	Multitube Rack	S600-13, 16 & 30	235	-----	-----
0.5, 1.5-2, 15 & 50 ml	4 Way Tube Rack	HS29022	236	-----	-----
0.2 ml	PCR Tube Rack 96 Well	HS23461	237	-----	-----
1.5-2.0 ml	Microtube Rack 80 Well	HS29025	238	HS23263	242
0.5 & 1.5-2.0 ml	Reversible Rube Rack 96 Well with lid	HS2345	239	-----	-----
0.5 & 1.5-2.0 ml	Reversible Rube Rack 64 Well with lid	27-109AL	240	-----	-----
1.6-2.0 ml	81 Well Freezer Storage Box	120034	241	-----	-----
1.6-2.0 ml.	100 Cell Hinged Lid Storage Box	120042	242	Stainles Steel Rack	252
1.5-2.0 ml	2" & 3" Cardboard Box with cell dividers for 81 & 100 microtubes	Various	243	Stainles Steel Rack	248-250
15 & 50 ml	4.75" Cardboard Box with cell dividers for 15 & 50 Conical Tubes	SB2C-100	243	Stainles Steel Rack	253
15 & 50 ml	Plastic Box for 15 & 50 ml tubes	27-241 & 342	244	-----	-----
2.0 ml	Cryogenic Boxes	Various	245	-----	-----



**PCR Work-Up Rack, 5 racks/unit, Genesee Scientific 27-210**

- Ideal platform to satisfy all pre- or post- PCR sampling applications
- Includes a deep lift-off lid for secure sample storage
- Easy stacking with or without the lid
- Accommodates 32 x 0.2ml PCR tubes, 24 x 1.5ml/2.0ml and 16 x 0.5ml microtubes
- Made of durable polypropylene that withstands temperature range -90°C to 121°C
- Can be interlocked with 96-Well PCR Rack (Cat #: 27-202) to increase sample capacity
- Dimensions with lid (W x D x H): 6.69 x 4.33 x 4.13in / 170 x 110 x 105mm
- Dimensions without lid (W x D x H): 6.69 x 4.33 x 3.07in / 170 x 110 x 78mm

The unique design of the PCR Work-Up rack is ideal for the PCR set up where a variety of consumable types are required. This working or storage rack with lid can accommodate up to 32 individual 0.2ml PCR tubes, 24 x 1.5ml or 2.0ml and 16 x 0.5ml microtubes. Retainer clips at the end allow the rack to easily snap and lock into the 96-Place Rack (Cat #: 27-202) for more sample storage and capacity. Alphanumeric indexing is molded into the rack for fast sample identification. Created for PCR workflow, this popular rack is ideal for any lab bench.

Ordering Information

Before	Catalog #	Color	Dimensions		Qty per pack
			w/out lid	With lid	
3573.A	27-210A	Assorted	170 x 110 x 78 mm	170 x 110 x 105 mm	5 Racks/Unit
3573.B	27-210B	Blue	170 x 110 x 78 mm	170 x 110 x 105 mm	5 Racks/Unit
3573.G	27-210G	Green	170 x 110 x 78 mm	170 x 110 x 105mm	5 Racks/Unit
-----	27-210O	Orange	170 x 110 x 78 mm	170 x 110 x 105mm	5 Racks/Unit
-----	27-210P	Pink	170 x 110 x 78 mm	170 x 110 x 105mm	5 Racks/Unit
3573.Y	27-210Y	Yellow	170 x 110 x 78 mm	170 x 110 x 105mm	5 Racks/Unit

Mini Benchtop Coolers

- Protect temperature-sensitive samples at the bench or in the freezer  
Ideal for keeping samples or reagents cool during testing
- Polycarbonate construction with rubber non-slip feet
  - Coolers 120072 and 120075 are filled with a self-insulating gel to improve cooling capacity of unit
  - Gridded and keyed one-position lids for easy sample identification
  - Temperature-retention graph included



Ordering Information

Catalog #	Color	Tubes	Lid	Tube Array	Wells	Dimensions	Temp.	Temp. Retention
120070	Green	0.5-2.0 ml	Clear	3 x 4	12	14.5x10.5x10 cm	0°C	1°C for 3 hr
120071			Clear	4 x 8	32	24.5x10.5x10 cm		1°C for 2 hr
120072			Gel Filled	4 x 8	32	24.5x10.5x10 cm		1°C for 5 hr
120073	Blue	0.5-2.0 ml	Clear	3 x 4	12	14.5x10.5x10 cm	-20°C	-15°C for 1 hr
120074			Clear	4 x 8	32	24.5x10.5x10 cm		
120075			Gel Filled	4 x 8	32	24.5x10.5x10 cm		
120076	Blue	0.2 ml	Clear	8 x 12	96	22.5x16.5x11 cm	-20°C	-15°C for 2 hr



### Cryovial Rack

This workstation holds up to 50 cryogenic vials. Vials are locked into the base, making it easy to open the vials with one hand. Made of durable polypropylene and with a useful handle, this rack with alpha-numeric index is an economical choice for cryogenic users. This rack also features 5 non-skid feet to keep the rack stable on the bench.

#### Features:

- Holds 50 Cryovials
- Base holds tubes in place for opening
- Durable polypropylene
- Autoclave\* safe
- Temperature range -80°C - 121°C



### Microtube Rack 50 Wells

The OneHand™ Microtube Rack is made of 2 tiers to facilitate the insertion and stability of microtubes. Now with one hand, you can easily unscrew just about any type of microcentrifuge tube with a screw-on closure. Thanks to an innovative locking system, the Simport self-standing Microwtubes® will securely lock in each well of the base tier and will not turn. All models of microtubes made by various manufacturers will lock in the upper tier, thanks to a series of teeth grasping the collar of the microtube. Convenient handles on each side of the rack will ensure a safe grip when carrying it around. Interlocking feet allow safe stacking.

#### Features

Made of acetal | Locking base hold self standing Microwtube™ in place for opening and closing | Submersible but maintains stability without tipping over | Interlocking feet allow for safe stacking | Not autoclavable

### Compatible Products

### Ordering Information

#### Cryovials

Available from 1ml to 5ml sizes. Choose Neptune™ brand cryovials on page of the Simport™ section. **Page 195**

#### Microcentrifuge Tubes

See our Olympus Plastics™ section, **pages 193-194**



Before	Catalog #	Description	Color	Dimensions	Qty per pack
3515.B	<b>T315-2</b>	50 Tube Cryovial Rack	Blue	203x102x25 mm	4
3551.B	<b>T360-50B</b>	MicroTube Rack	Blue	293x115x39 mm	1
3551.G	<b>T360-50G</b>	MicroTube Rack	Green	293x115x39 mm	1
3551.L	<b>T360-50L</b>	MicroTube Rack	Lilac	293x115x39 mm	1
3551.Y	<b>T360-50Y</b>	MicroTube Rack	Yellow	293x115x39 mm	1

\*121°C, 15psi for 15 minutes





## MultiTube Rack

The MultiTube is available in three designs to accommodate a full range of laboratory test tubes and centrifuge tubes up to 30mm in diameter. Made of highly resistant acetal polymer, it will not shatter or stain in contact with most laboratory chemicals. No protective coating to worry about, which can chip, peel or rust in a water bath when using plastic coated racks. The MultiTube is made of three tiers to facilitate the insertion and stability of tubes. The base tier has rounded wells with drain holes. Convenient handles on each side of the rack will ensure a safe grip for transportation.

### Features:

- Constructed of acetal polymer
- Ideal for -80°C storage
- Stability while immersed in water
- Lightweight
- Autoclave\* safe
- Temperature range -80°C - 121°C



## Ordering Information

## Compatible Products

Catalog		Color	Capacity	Tube Fit
Before	Now			
3552.B	S600-13B	Blue	84 Tubes	13 mm diameter max
3552.G	S600-13G	Green		
3552.L	S600-13L	Lavender		
3552.Y	S600-13Y	Yellow		
3553.B	S600-16B	Blue	60 Tubes	16 mm diameter max
3553.G	S600-16G	Green		
3553.L	S600-16L	Lavender		
3553.Y	S600-16Y	Yellow		
3554.B	S600-30B	Blue	18 Tubes	25-30 mm diameter max
3554.G	S600-30G	Green		
3554.L	S600-30L	Lavender		
3554.Y	S600-30Y	Yellow		

### Cryovials

Color coordinate with inserts. See **page 195**



### 15 & 50ml conical tubes

Available racked or bulk. See our Olympus Plastics™, **page 198**





## 4-Way Tube Rack



## 4-Way Tube Rack

**VERSATILE**

• Use as standalone unit or infinite units can be linked to create configurations to fit number of wells and tube sizes needed

**ROBUST FUNCTIONAL DESIGN**

• Molded alphanumeric identification for quick location and retrieval of tubes  
 • Racks can be used in water baths and placed in freezer

**SPECIFICATIONS:**

- Sold in packs of 5
- Assorted color pack available for color coding options
- Made from polypropylene that is chemical resistant and easy to clean
- Fits a wide variety of tube sizes (32x0.5 mL, 32x1.5-2 mL, 12x15 mL, and 4x50 mL)
- Dimensions: 6.9 x 3.7 x 2.1 in (17.4 x 9.5 x 5.2 cm)
  - Ideal for bench top use
    - Sturdy polypropylene
    - Suitable for -80°C storage
    - Autoclave\* safe
    - Temperature range -80°C - 121°

## Compatible Products

**0.6ml & 1.6ml tubes,**

See our Neptune™ section, **pages 189-190.**

**15ml & 50ml tubes,**

See our Olympus Plastics™ **page 198**



## Ordering Information

## Ordering Information:

Before	Catalog #	Color
3555	<b>HS29022A</b>	Natural
3555.A	<b>HS29022G</b>	Assorted (Blue, Green, Pink, Yellow & Orange)
3555.B	<b>HS29022B</b>	Blue
3555.G	<b>HS29022C</b>	Green
3555.O	<b>HS29022F</b>	Orange
3555.P	<b>HS29022D</b>	Pink
3555.Y	<b>HS29022E</b>	Yellow

## 0.2 ml PCR Tube Racks 96 Well of 5.2 mm diam.

Perfect for pre- or post-PCR sampling

- Made of polypropylene
- Accommodates individual tubes or strips
- Removable hinged lid lies flat
- Alphanumeric identification for quick location and retrieval of tubes

### Features:

- Polypropylene construction
- Fits 0.2ml tubes/strips
- 96-well work rack
- Dimensions 5"x3.9"x1.2" (12.7x9.9x3.0 cm)
- 8 x 12 microtiter format
- Clear polypropylene lid
- Suitable for -80°C storage
- Autoclave\* safe



## Ordering Information

Before	Catalog #	Color
3510.A	<b>HS23461A</b>	Assorted (Blue, Green, Pink, Yellow & Orange)
-----	<b>HS23461B</b>	Natural
3510.B	<b>HS23461C</b>	Blue
3510.G	<b>HS23461D</b>	Green

## Compatible Products

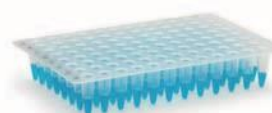
### 0.2ml tubes & strip tubes

See our Olympus Plastics™  
**pages 187**



### Non-Skirted full profile plate, cat # 3730.X

See our Neptune™ section, **page 212**



\*121°C, 15psi for 15 minutes

**Microtube Rack 80-Well Pack of 5**

Popular fraction-collector-plate style rack  
 Compact 5x16 array makes filling and transfer easy

**Features:**

- Numerically labeled
- Sturdy polypropylene
- Suitable for -80°C storage
- 80 well capacity
- Autoclave\* safe
- Frosted labeling area on bottom of rack
- Embossed index numbers for quick sample ID and retrieval
- Made of polypropylene
- Dimensions: 22.5x6.7x2.8 cm



## Compatible Products

## Ordering Information

**1.6ml Microcentrifuge Tubes**

See our Neptune™ *page 190*

**Cryotubes**

Available in 0.5/1.5 & 2.0ml sizes.

See Simport™ section, *page 196*



\*121°C, 15psi for 15 minutes

Before	Catalog #	Color
3580	HS29025A	Natural
3580.B	HS29025B	Blue
3580.G	HS29025C	Green
-----	HS29025D	Pink
3580.Y	HS29025E	Yellow
3580.O	HS29025F	Orange
3580.A	HS29025G	Assorted (Blue, Green, Pink, Yellow & Orange)
3580.R	HS29025J	Red

**Reversible Tube Racks 96-Well pack of 5**

Easy-to-grasp tabs for sample handling and storage

96 wells for 0.5 mL tubes on one side and 96 wells for 1.5/2.0 mL tubes on the reverse side

Optimum Function & Identification

- Wells arranged in standard 8 x 12 array
- Molded in-grid lines separate 0.5 mL wells making them easier to see
- Raised rings around the 1.5 mL/2.0 mL wells make tubes easier to remove
- Alphanumeric identification for quick location and retrieval of tubes
- Secure lid
- Translucent lid snaps onto rack tabs for secure, visible storage
- Spacious enough to fit most screw-top micro-centrifuge tubes
- Stackable, saving valuable space
- Autoclave safe
- Temperature range -80 a 121°C
- Dimensions 24.4 x 12 x 5.1 cm.

**Ordering Information**

Before	Catalog #	Color
3570.A	<b>HS2345A</b>	Assorted (Blue, Green, Pink, Yellow & Orange)
3570	<b>HS2345B</b>	Natural
3570.B	<b>HS2345C</b>	Blue
3570.G	<b>HS2345D</b>	Green
-----	<b>HS2345E</b>	Pink
3570.Y	<b>HS2345F</b>	Yellow

**Compatible Products****0.6ml PCR & Microcentrifuge tubes**

See our Neptune™ section, **pages 189**

**1.6ml tubes with technology for low retention.**

See our Olympus Plastics™ section **page 190**



\*121°C, 15psi for 15 minutes



**64-Place Flipper Microtube Rack Assorted with Lids, 5 Racks/Unit Genesee Scientific 27-109AL**

- Durable reversible rack holds up to 64 tubes in an 8 x 8 matrix
- Side 1: 64 wells for 1.5/2.0ml tubes
- Side 2: 64 wells for 0.5ml tubes
- Letters and numbers are molded on the outskirts of the rack for easy sample identification
- Constructed of durable polypropylene to withstand temperature range of -90°C to 121°C
- Comes in a pack of 5 in either clear or assorted colors to compliment your lab's style
- Clear lids included
- Dimensions (W x D x H): 5.2 x 5 x 1.22in / 132 x 127 x 31mm

This assorted double-sided rack provides a great long-lasting alternative to cardboard freezer boxes. Made of durable polypropylene, the 64-Place Flipper Rack is guaranteed to keep its shape and withstand freezing and autoclaving conditions. Each side holds up to 64 tubes in an 8 x 8 format – the first side is molded to fit 1.5ml tubes while the opposite holds 0.5ml tubes. For easy identification and location, the outskirts of the rack include easy-to-read letters and numbers. Coming in a pack of 5, the racks are created to maximize bench space and versatility.

Our Flipper® Storage Racks are the key to effortless lab organization. The multifaceted design allows the rack to hold a combination of the most popular tube sizes. Each side is custom molded with alphanumeric indexing to easily identify and locate samples. Coming in clear and assorted colors, these racks make the perfect addition to any laboratory benchtop.

Ordering Information

Before	Catalog #	Color
3575.A	27-109AL	Assortment



81-Well Freezer Storage Box

This cryogenic storage box is a colorful economic alternative to the “disposable” cardboard freezer box. This freezer rack is rated to -80°C and fits into existing standard freezer storage modules that specify 2” tall standard boxes. It holds all 1.6/2.0 ml microcentrifuge tubes and standard cryovials. The grid is alpha-numerically labeled in a distinctive contrasting color for fast, easy, and clear identification of individual tube samples. The rack comes with a clear lid with frosted writing panels on two sides for labeling.

Features:

- Fits in freezer racks for 2” tall cardboard boxes
- Alpha-numeric index inside box
- Suitable for -80°C storage
- Autoclave\* safe
- Temperature range -80°C - 121°C



Ordering Information

Before	Catalog #	Color
3516	120034	Natural
3516.B	120035	Blue
3516.G	120036	Green
-----	120037	Pink
3616.Y	120038	Yellow
-----	120039	Orange
3516.A	120040	Assorted colors (Blue, Green, Yellow, Orange, Pink)
-----	120041	Black

Compatible Products

1.2ml Cryovials & 1.6ml microcentrifuge tubes

See our Neptune™ section, *pages 195 & 190*



Cat #T310 -1A



Cat # 3745.X

\*121°C, 15psi for 15 minutes



**Hinged Lid 100-Cell  
Storage Box**
**Heathrow Scientific™ brand Storage**

**Hinged Lid 100-Cell Storage Box**

This 100-cell box is sturdy and reusable. It is a great alternative to cardboard storage boxes. It accommodates all 1.6/2.0 ml microtubes and most standard 1.2 ml cryovials. The rack features a durable clasp for repeated opening and closing. It is rated for storage to -80°C and may be safely stacked. The grids are alpha-numerically matrixed with hot stamped characters in contrasting colors for fast and accurate identification of individual tubes. A frosted writing panel across the front of the rack provides a convenient labeling option.

**Features:**

- 100-tube capacity
- Sturdy polypropylene
- Alpha-numerically labeled INSIDE box
- Color options
- Polypropylene
- Autoclave\* safe

**Compatible Storage Unit:**

Stainless steel racks

**Page 252**

**Compatible Products**
**Up to 2ml Cryovials & Microtubes (1.5-2ml)**

 See Simport™ **pages 193-195**

**Cat # T310-2A**
**Cat # 21-265**

\*121°C, 15psi for 15 minutes

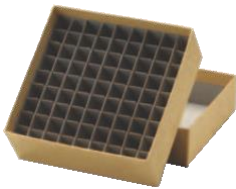
**Ordering Information**

Before	Catalog #	Color
3517	<b>120042</b>	Natural
3517.B	<b>120201</b>	Blue
3517.G	<b>120202</b>	Green
3517.Y	<b>120203</b>	Yellow
-----	<b>120204</b>	Orange
3517.A	<b>120044</b>	Assorted colors (Blue, Green, Yellow, Orange, Pink)
-----	<b>120043</b>	Black



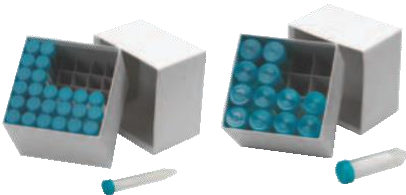
Boxes and Cell Dividers

Atlas™ brand 2" and 3" cardboard boxes are suitable for upright, chest and drawer style freezer racks. They are an economical storage option.



2" & 3" Standard Boxes with Cell Dividers for 81 & 100 tubes  
Dimensions 133x133 mm

Before	Catalog #	Capacity	Height	Color	Packaging
3680	SB2C-100W	100 tubes 1.5-2 ml	2"	White	Unit
3680	SB2CC-100Y	100 tubes 1.5-2 ml	2"	Yellow	Unit
3680	SB2C-81W	81 tubes 1.5-2 ml	2"	White	Unit
3680	SB2CC-81Y	81 tubes 1.5-2 ml	2"	Yellow	Unit
3681	SB3C-81Y	81 tubes	3"	Yellow	Unit



Standard 4.75" Cardboard Box with Cell Dividers for tubes of 15 & 50 ml  
Dimensions: 148x148 mm

Before	Catalog #	Capacity	Height	Color	Packaging
3693	SB2C-100W	16 x 50 ml	4.75"	White	Unit
3694	SB2CC-100Y	36 x 15 ml	4.75"	White	Unit



**Plastic Boxes for 15ml and 50ml Tubes**  
**2 Boxes/Unit**

Keep your 15ml and 50ml samples safely stored and organized by using the Atlas™ 15 and 50ml plastic storage boxes. These polypropylene boxes are a clean and durable alternative to the cardboard boxes on page 177. The clear lid ensures you can see your samples easily and alpha-numeric indexing in white makes location simple. The polypropylene construction is durable in the solid base. Color-coded to ensure you know which is which!

**Features:**

- Durable polypropylene
- Clear lid
- Alpha-numeric grid matrix
- Autoclave\* safe
- Temperature range -80°C - 121°C

Compatible Products

Ordering Information



Storage Unit	Cat # UFLB-22	Cat # CFLB-5
Capacity	6 Boxes	5 Boxes
Page	247	247

\*121°C, 15psi for 15 minutes

Before	Catalog #	Description
3540	27-241	Freezer Box Green with lid for 36 x 15ml   diameter 16 mm, dimensions: 137x137x127 mm
3541	27-342	Freezer Box Blue with lid for 16 x 50ml   diameter 29 mm, dimensions: 137x137x127 mm

Related Products

**15ml & 50ml tubes,**

See Olympus Plastics™ **page 198**



### Cryogenic Boxes Artic Squares®

Polycarbonate Cryostorage Boxes

Safely store cryogenic vials

**Our polycarbonate boxes are designed with unique features to help orient,**

**identify and access vials with ease**

- Alphanumeric labeling on lid or base (depending on the unit) for quick location and retrieval of tubes
- Liquid nitrogen vent and drainage holes
- Magnet on top of forceps enables easy storing on metal surfaces
- Stackable, saves valuable space in the lab



### Ordering Information

Before	Catalog #	Color	Tube Array	Tubes	Lid	Packaging	Dimensiones	Forceps
3542.R	HS23325A	Ruby Red	5 x 5	25 – 2.0ml	Slide On	8	7.6 x 7.6 x 5.3 cm	No
3543.A	HS23381B	Assorted (Ruby Red, Amethyst Purple, Arctic Blue, Emerald Green)	9 x 9	81 – 2.0ml	Hinged	4	13.3 x 13.3 x 5.3 cm	Yes
3545.B	HS23300D	Artic Blue	10 x 10	100-2.0 ml	Hinged	4	13.3 x 13.3 x 5.3 cm	Yes

## Organize your Freezer with Atlas™ brand Acrylic and Stainless Steel Storage Units

Atlas™ brand storage offers two freezer rack constructions, acrylic and stainless steel. All our racks and storage units fit standard size popular upright and chest freezers.

Upright/Acrylic



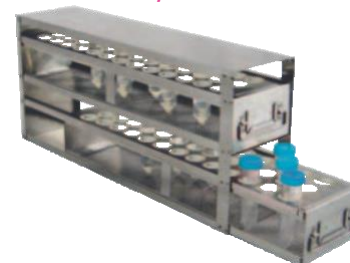
Chest/Stainless Steel



Upright/Stainless Steel



Drawer/Stainless Steel



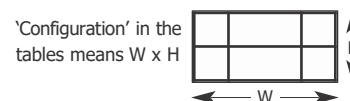
### Acrylic:

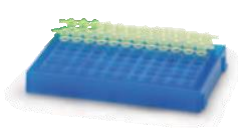
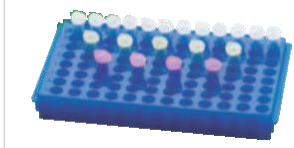




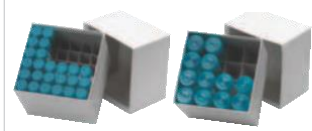


- Solid Acrylic
- Non-skid feet
- Ideal for refrigerators
- Suitable for -20°C
- Holds standard tube racks

### Stainless Steel:

- Corrosion resistant
- Fit all standard freezers
- Ideal for long term storage at -80°C
- Three styles; Chest, Upright and Drawer Style

Our storage racks come in different configurations, dimensions and capacity. To help you choose the correct storage unit, please refer to our helpful guide.



96-Well x 0.2ml Rack 	96-Well Flipper & PCR Workstation 	64-Well Flipper or 81-Well freezer 2 " Cardboard Boxes 	80-Well Rack  Racks of Acrylic Page 247	100-Well Hinged 
3" Boxes 	15 and 50ml Centrifuge Boxes 	96-Well and 384-Well plates 	96-Cell MicroTube Rack 	

### Storage Racks of Acrylic for 80-well racks

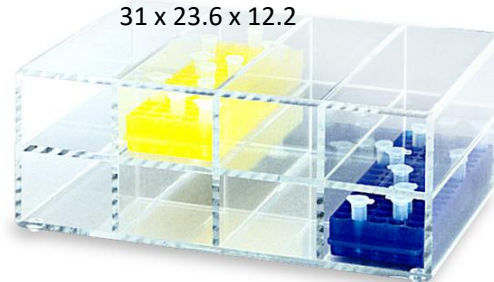
#### Strong, clear acrylic construction

**These racks help you keep large numbers of microtubes organized on your benchtop**

- Holds up to eight 80-well microtube racks filled with either 1.5 or 2.0 mL microtubes
- Plenty of room to slide the racks in and out

#### DIMENSIONS:

- Vertical Rack: 6.2 x 9.3 x 9.2 in (15.7 x 23.6 x 23.4 cm)
- Horizontal Rack: 12.2 x 9.3 x 4.8 (31 x 23.6 x 12.2 cm)



Item No. Description Color

L x W x H

L x W x H

in

cm

HS23263A Vertical

Clear ■■ 6.2 x 9.3 x 9.2

15.7 x 23.6 x 23.4

HS23263B Horizontal Clear ■■ 12.2 x 9.3 x 4.8

31 x 23.6 x 12.2





### Storage Units for Standard 2" Boxes

Crystal™ stainless steel storage units are manufactured with high quality corrosion free steel. They are available in a variety of configurations and styles.

**Spring clip** Vertical spring clip racks securely hold boxes in rack compartments without using locking rods and allow for easy removal of boxes. Locking rod are not required but are included.

**\*\*\*Security Lock Device** for chest freezer and liquid nitrogen tank racks are made of high quality stainless Steel and secured with a lock included with each system



#### Ordering Information:

Style	Vertical Rack for Chest Freezer & Liquid Nitrogen Tanks												
Before	-----	-----	3600	3601	-----	3606	3607	-----	-----	-----	3608	-----	-----
Catalog #	CF-15-2	CF-14-2	CF-13-2	CF-12-2	CF-11-2	CF-10-2	CF-9-2	CF-8-2	CF-7-2	CF-6-2	CF-5-2	CF-4-2	CF-3-2
With Spring Clip	CF-15-2-2	CF-14-2-S	CF-13-2-S	CF-12-2-S	CF-11-S-S	C-10-2-S	-----	-----	-----	-----	-----	-----	-----
Lock Device Option ***	DR-32	DR-31	DR-27	DR-26	DR-23	DR-22	DR-19	DR-17	DR-15	DR-12	DR-11	DR-09	DR-06
Configuration	15 boxes	14 boxes	13 boxes	12 boxes	11 boxes	10 boxes	9 boxes	8 boxes	7 boxes	6 boxes	5 boxes	4 boxes	3 boxes
Dimensions	838x143x140 mm	782x143x140 mm	717x143x140 mm	670x143x140 mm	615x143x140 mm	559x143x140 mm	503x143x140 mm	447x143x140 mm	392x143x140 mm	336x143x140 mm	280x143x140 mm	224x143x140 mm	168x143x140 mm

Locking rod included with chest style



Upright Freezer Racks are for standard 2" cardboard, polycarbonate or metal boxes. High quality, including handles, are constructed of corrosion resistant stainless steel and offer convenient storage of samples in an organized format. Security lock devices also available for each rack. Using the internal dimensions obtained for your freezer shelf space determine the height, length and width of each rack you select for your upright freezer.

#### Ordering Information:

Style	Horizontal Rack for Upright Freezer											
Before	-----	3622	3621	-----	-----	3617	-----	-----	3616	-----	-----	-----
Catalog #	UF-552	UF-462	UF-452	UF-542	UF-362	UF-442	UF-352	UF-532	UF-342	UF-432	UF-332	UF-332
Lock Device Option ***	DP-2711	DP-2113	DP-2111	DP-2709	DP-1613	DP-2109	DP-1611	DP-2707	DP-1609	DP-2107	DP-1607	DP-1607
Configuration	25 boxes 5 X 5	24 boxes 4 X 6	20 boxes 4 X 5	20 boxes 5 X 4	18 boxes 3 X 6	16 boxes 4 X 4	15 boxes 3 X 5	15 boxes 5 X 3	12 boxes 3 X 4	12 boxes 4 X 3	9 boxes 3 X 3	9 boxes 3 X 3
Dimensions	679x280x140 mm	550x321x140 mm	550x280x140 mm	679x225x140 mm	415x321x140 mm	550x225x140 mm	415x280x140 mm	679x168x140 mm	415x225x140 mm	550x168x140 mm	415x168x140 mm	415x168x140 mm





Upright Freezer Drawer Racks for Standard 2” Boxes

Crystal™ Drawer Racks offer a more organized system for storage and retrieval of samples. Drawer Racks facilitate both Access to and storage of samples without having to remove the whole rack from the freezer. Security lock devices are also available for each rack.



Ordering Information:									
Style	Upright Freezer Drawer Racks								
Before	-----		-----	3612	-----	-----	3610	-----	-----
Catalog #	UFD-552	UFD-452	UFD-542	UFD-442	UFD-352	UFD-532	UFD-342	UFD-432	UFD-332
Lock Device Option ***	DD-11	DD-11	DD-09	DD-09	DD-11	DD-06	DP-1609	DD-06	DD-06
Configuration	25 boxes 5 X 5	20 boxes 4 X 5	20 boxes 5 X 4	16 boxes 4 X 4	15 boxes 3 X 5	15 boxes 5 X 3	12 boxes 3 X 4	12 boxes 4 X 3	9 boxes 3 X 3
Dimensions	680x300x140 mm	559x300x140 mm	680x300x140 mm	559x240x140 mm	419x300x140 mm	679x181x140 mm	419x240x140 mm	559x181x140 mm	419x181x140 mm

CLP Compatibility	Catalog #		Description
		SB2C-100W   SB2CC-100Y   SB2C-81W   SB2CC-81Y	2” cardboard boxes, <i>page 243</i>
		27-109AL	64-Well Flipper Rack, <i>page 240</i>
		120034	81-Well Freezer Racks, <i>page 235</i>
		HS23381B HS23300D	Cryovial storage boxes, <i>page 239</i>



Storage Units for Standard 3” Boxes

Atlas™ stainless steel storage units are manufactured with high quality corrosion free steel. They are available in a variety of configurations and styles.

This popular rack holds 3” cardboard, plastic or any material boxes. Our 3” boxes are on page .



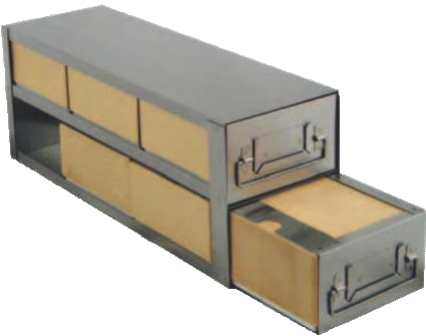
Locking rod included with chest style

Ordering Information:							
Style	Vertical Rack for Chest Freezer & Liquid Nitrogen Tanks						
Before	-----	-----	3604	-----	-----	3605	-----
Catalog #	CF-10-3	CF-9-3	CF-8-3	CF-7-3	CF-6-3	CF-5-3	CF-4-3
With Spring Clip	CF-10-3-S	CF-9-3-S	CF-8-3-S	CF-7-3-S	-----	-----	-----
Lock Device Option ***	DR-31	DR-27	DR-25	DR-22	DR-17	DR-15	DR-12
Configuration	10 boxes	9 boxes	8 boxes	7 boxes	6 boxes	5 boxes	4 boxes
Dimensions	807x143x140mm	717x143x140 mm	646x143x140 mm	565x143x140 mm	485x143x140 mm	404x143x140 mm	323x143x140 mm



Ordering Information:							
Style	Horizontal Rack for Upright Freezer						
Before	-----	-----	-----	3620	3619	-----	-----
Catalog #	UF-543	UF-443	UF-533	UF-433	UF-333	UF-423	UF-323
Lock Device Option ***	DP-2713	DP-2112	DP-2710	DP-2110	DP-1610	DP-2107	DP-1607
Configuration	20 boxes 5 X 4	16 boxes 4 x 4	15 boxes 5 x 3	12 boxes 4 x 3	9 boxes 3 X 3	8 boxes 4 x 2	6 boxes 3 X 2
Dimensions	679x321x140 mm	562x321x140 mm	679x241x140 mm	550x238x140 mm	415x238x140 mm	550x168x140 mm	415x168x140 mm





Ordering Information:					
Style	Upright Freezer Drawer Racks				
Before	-----	3615	3614	-----	-----
Catalog #	UFD-533	UFD-433	UFD-333	UFD-423	UFD-323
Lock Device Option ***	DD-09	DD-09	DP-09	DD-06	DD-06
Configuration	15 boxes 5 X 3	12 boxes 4 X 3	9 boxes 3 X 3	8 boxes 4 X 2	6 boxes 3 X 2
Dimensions	679x256x140 mm	559x256x140 mm	419x256x140 mm	559x181x140 mm	419x164x140 mm

CRYSTAL

CRYSTAL

CLP Compatibility	Catalog #		Description
<p>Stainless Steel storage units on this page will fit the following rack dimensions</p> 		3681	<p>Crystal™ brand 3" cardboard boxes are an economical alternative to plastic boxes, <b>page</b> .</p>



Storage Units for Hinged Top Plastic Boxes (100-Cell)

Atlas™ stainless steel storage units are manufactured with high quality corrosion free steel. They are available in a variety of configurations and styles.

Locking rod  
included with  
chest style



Ordering Information:								
Style	Chest Freezer Rack For 100-Cell Hinged Top Plastic Storage Boxes							
Before	-----	-----	3604	-----	-----	3605		
Catalog #	UFDHT-44-	UFDHT-35	UFDHT-43	UFDHT-34	UFDHT-25	UFDHT-33	UFDHT-24	UFDHT-23
Lock Device Option ***	DDHT-09	DDHT-11	DDHT-06	DDHT-09	DDHT-11	DDHT-06	DDHT-09	DDHT-06
Configuration	16 boxes	15 boxes	12 boxes	12 boxes	10 boxes	9 boxes	8 boxes	6 boxes
Dimensions	580X247X164 mm	437X308X164 mm	580X186X164 mm	437X247X164 mm	294X308X164 mm	437X186X164 mm	294x247x164 mm	294x186x164 mm



CLP Compatibility	Catalog #		Description
Stainless Steel storage units on this page will fit the following rack dimensions			Heathrow Scientific™ brand storage racks are durable and available in a variety of great colors.
	120042		The # 120042 100-cell hinged box on <b>page 242</b> features alpha-numeric identification.

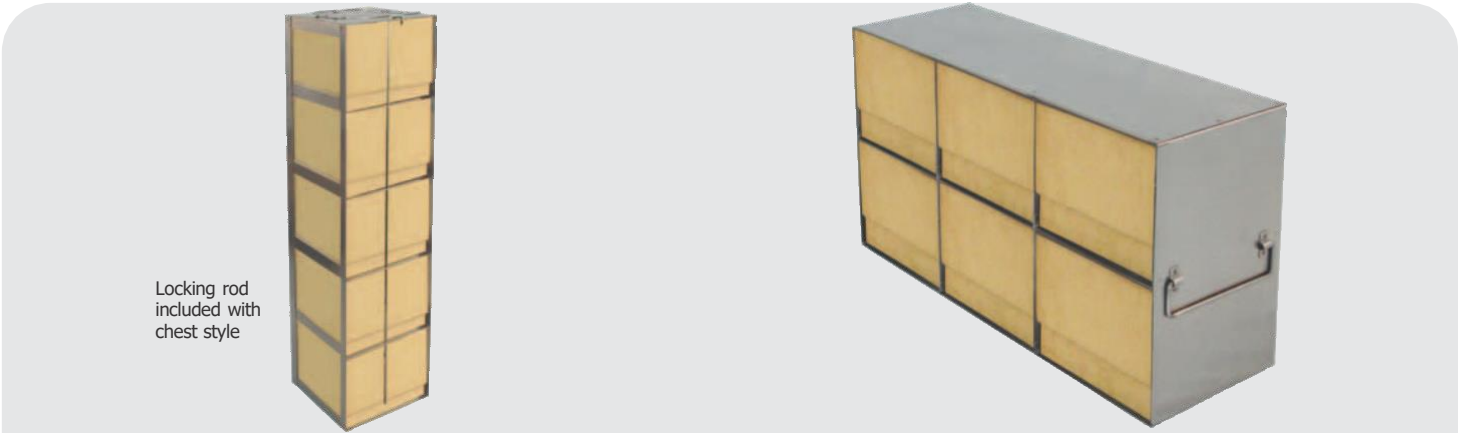




Storage Units for 50ml and 15ml Tube Boxes

Atlas™ stainless steel storage units are manufactured with high quality corrosion free steel. They are available in a variety of configurations and styles.

This popular rack holds centrifuge tube boxes, both cardboard and plastic.



Style	Chest	Upright
Catalog #	CFLB-5	UFLB-22
Configuration	5 boxes	3 x 2 = 6 boxes
Dimensions	6 x 6.2 x 25" 153 x 157 x 637mm	18.25 x 5.9 x 10.2" 464 x 149 x 259mm

CLP Compatibility	Catalog #	Description
Stainless Steel storage units on this page will fit the following rack dimensions		SB2C-100W & S2CC-100Y
		27-241 & 27-342
		Sturdy cardboard boxes are featured on <i>page 243</i> .
		Durable plastic boxes provide a long lasting alternative to cardboard, <i>page 244</i> .





Racks for 50ml and 15ml Tubes

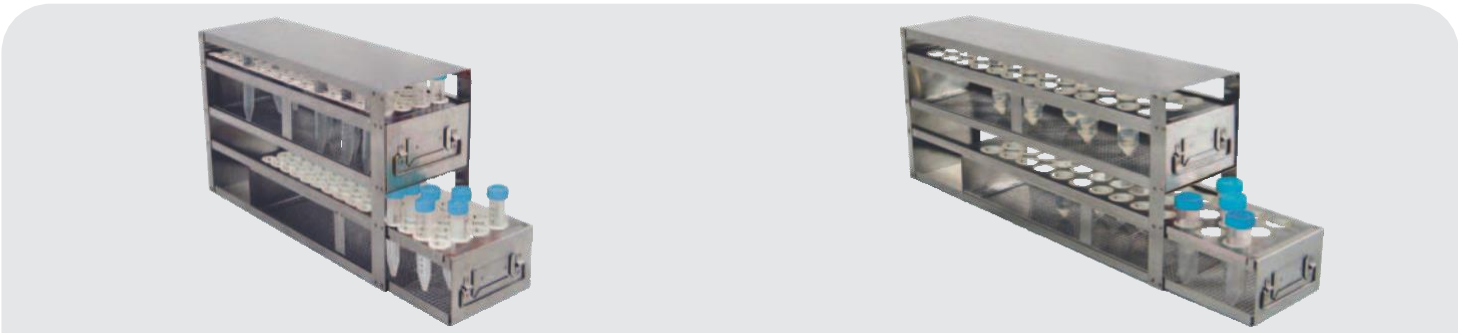
Crystal™ stainless steel storage units are manufactured with high quality corrosion free steel. They are available in a variety of configurations and styles.

Locate your 15 or 50ml samples using our convenient sliding drawer racks. All tubes are stored upright and fit all 15ml and 50ml tubes. The drawers slide all the way out to locate the samples at the back. All tubes are



organized in a grid system that promotes uniform air circulation. tube racks have 2 drawers.

Racks are compatible with all freezers and chest freezers.

Looking to store your 15ml and 50ml in boxes – see pages 177 and 178 for boxes and page 184 for racks.



Style	Rack with drawer for 15ml tubes		Rack with drawer for 50ml tubes	
Catalog #	UFD-T15-2	UFD-LT15-2	UFD-T50-2	UFD-LT50-2
Configuration	120 x 15ml tubes	160 x 15ml tubes	60 x 50ml tubes	78 x 50ml tubes
Number of drawers	2	2	2	2
Dimensions	16.5 x 5.5 x 9.9" 419 x 140 x 252mm	22 x 5.5 x 9.9" 559 x 140 x 252mm	16.5 x 5.5 x 9.9" 419 x 140 x 252mm	22 x 5.5 x 9.9" 559 x 140 x 252mm

CLP Compatibility	Catalog #	Description
	21-101 & 21-103	Gen Clone™ brand 15ml centrifuge tubes are manufactured to the highest specifications from virgin polypropylene (see <b>page 198</b> ).
	21-106 & 21-108	Gen Clone™ brand 50ml centrifuge tubes are manufactured to the highest specifications from virgin polypropylene (see <b>page 198</b> ).

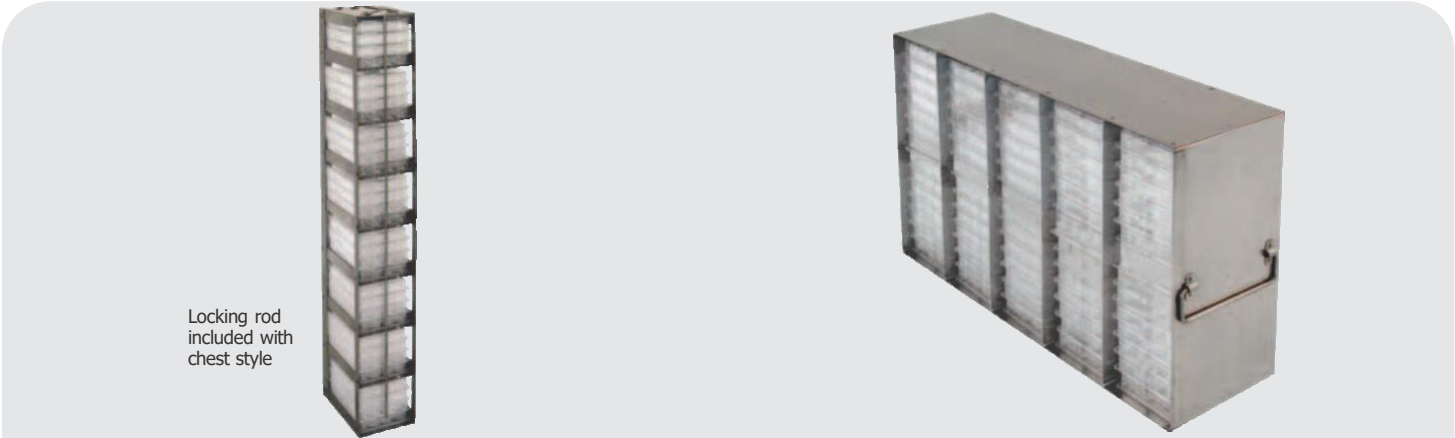




Storage Units for Microtiter Plates - 96-Well and 384-Well

Crystal™ stainless steel storage units are manufactured with high quality corrosion free steel. They are available in a variety of configurations and styles.

Store your 96 and 384-well plates with a lid or without. Most plates will fit. Please check your plate dimensions against the guide.



Style	Chest		Upright	
Catalog #	CFMP-7	CFMP-8	UFMP-609L	UFMP-611L
Capacity	35 plates with lids 42 plates without lids	48 plates with lids 64 plates without lids	84 plates with lids 96 plates without lid	96 plates with lids 120 plates without lids
Dimensions	23 3/16 x 3 5/8 x 5.5" 589 x 92 x 140 mm	26.5 X 3 5/8 X 5.5" 673 Xx 92 x 140 mm	22 x 5.5 x 9.2" 559 x 140 x 234mm	22 x 5.5 x 11" 559 x 140 x 279mm

CLP Compatibility	Catalog #		Description
Stainless Steel storage units on this page will fit the following rack dimensions			Neptune™ brand PCR plates on page 208 include cat # 3732.X, our 96-Well plate with full skirt for robotics.
	24-305		Olympus Plastics™ brand 384 plates for the high through put laboratory, <b>page 215</b> .



Storage units for 96 Deep-Well Plates

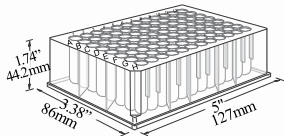
Crystal™ stainless steel storage units are manufactured with high quality corrosion free steel. They are available in a variety of configurations and styles.

Store your 96 deep-well plates with or without a lid. Most plates will fit. Please check your plate dimensions against the guide.



Style	Chest	Upright	
Catalog #	CFDP-14	UFDP-55L	UFDP-66L
Configuration	14 plates	5 X 5 = 25 plates	6 X 6 = 36 plates
Dimensions	3.6 x 5.5 x 25.5" 92 x 140 x 648mm	18.4 x 5.5 x 9.2" 466 x 140 x 233mm	22 x 5.5 x 11" 559 x 140 x 280mm

Stainless Steel storage units on this page will fit the following rack dimensions

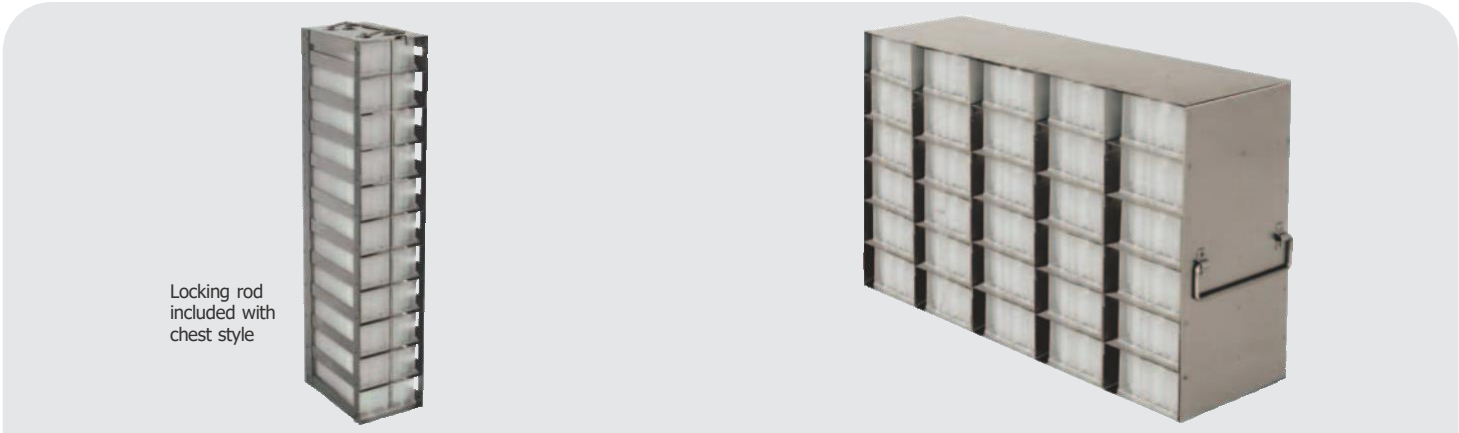




Storage Units for 96 Cell Microtube Boxes

Crystal™ stainless steel storage units are manufactured with high quality corrosion free steel. They are available in a variety of configurations and styles.

Store your 96-cell Microtube racks and plates with or without a lid. plates will fit, if you have any doubts, please check your plate dimensions against the guide.



Style	Chest	Upright		
Catalog #	CFTB-12	UFTB-54L	UFTB-64L	UFTB-65L
Configuration	12 boxes	5 x 4 = 20 boxes	6 x 4 = 24 boxes	6 x 5 = 30 boxes
Dimensions	3.63 x 5.5 x 9.56" 92 x 139 x 243mm	18.4 x 5.5 x 8.8" 466 x 140 x 224mm	22 x 5.5 x 8.8" 559 x 140 x 224mm	22 x 5.5 x 11" 559 x 140 x 280mm

CLP Compatibility	Catalog #	Description
Stainless Steel storage units on this page will fit the following rack dimensions 	 MTS-11-C-R	Axygen™ brand Mini-Tube system is featured on <b>page 197</b> . Its 8 x 12 format is ideal for multi-channel pipetting and robotics.

### Glove Box Holders

These rugged acrylic racks provide support when removing gloves from their boxes. They hold standard glove boxes and include holes and tape tabs for wall mounting. Each stand comes with a foam pad insert to ensure any size box fits well; choose from three sizes. **Cat HS23471A, B & C**

### Lab Film/Foil Dispenser

These lab dispensers provide dust free delivery of your plastic and foil wrap. They are made from clear acrylic and are easy to clean. Serrated blades are included with the dispensers. The lab film dispenser holds a 4" x 125' roll of Parafilm®. The foil and wrap dispenser holds a roll of foil or plastic wrap up to 18" x 1000' long. **Cat HS234524**



### Lab Tissue Holder

Remove laboratory tissues from the box without a struggle! Use Atlas™ holders for one-hand removal so you can mop up spills faster. The holder may be wall mounted. **Cat # HS234521 & HS234522**

### Serological Pipette Rack

These great looking racks are a space saving addition to your lab, providing convenient access to all your pipette sizes. Featuring solid acrylic construction, they are durable and are a colorful way to store your serologicals. **Cat. HS20611**

### Tube Dispenser

Organize your 0.2ml, 0.6ml and 1.6ml tubes with this great looking, easy access acrylic dispenser. It holds 1000 of the 1.5ml tubes and even more of the smaller sizes. Adjustable divider and removable top and bottom lid helps keep your tubes clean and organized. **Cat HS23402**



Catalog #	Single Glove Box Holder	Double Glove Box Holder	Triple Glove Box Holder	Lab Film Dispenser	Parafilm®
Catalog #	<b>HS23471A</b>	<b>HS23471B</b>	<b>HS23471C</b>	<b>HS234524</b>	<b>HS234526B</b>
Dimensions	26.3 x 14.6 x 11.4 cm	29.2 x 26 x 11.4 cm	29.4 x 38.8 x 11.6 cm	11.9 x 16.8 x 17.5 cm	4" x 125' length roll



Description	Holder for large Kimwipes®	Holder for small Kimwipes®	4-place Pipette Rack	Tube Dispenser
Catalog #	<b>HS234522</b>	<b>HS234521</b>	<b>HS20611</b>	<b>HS23402</b>
Dimensions	32 x 12.7 x 9.7 cm	11.8 x 12.2 x 8.4 cm	29.1 x 8.8 x 40.1 cm	15 x 17.7 x 36.8 cm





**Strong™**  
brand Safety

**Gloves Overview**

**pages 260-261**

**Nitrile Gloves**

**pages 262-264**

**Latex Gloves**

**page 265**

**Biohazard Waste Management**

**page 266**







CLP offers an array of high quality exam grade gloves that exceed the stringent quality requirements of the FDA. The quality of our gloves far exceed the Acceptable Quality Level (AQL) and other regulatory standards. Under the requirements of ISO 9001:2000, high level quality manufacturing and control systems must regulate every glove that is manufactured, delivered and ultimately used by our customers. We exceed the requirements placed by the regulatory agencies. More importantly, the assurance of your safety is our ultimate requirement.

Every customer can find a suitable glove by selecting from our wide array of nitrile and latex gloves. Whether it is the easy donning of a lightly powdered latex glove or maximum grip offered from a fully textured, high tack glove, personal preferences can vary significantly from user to user. All of our gloves offer great barrier protection from incidental contact with harsh chemicals or with lab disposables such as needles.

CLP is proud to introduce the STRONG™ brand, a new line of premium nitrile gloves that offers a very supple, lower modulus gloves.

This premium glove is a true confluence of flexibility, resiliency and biocompatibility. Leading edge improvements in synthetic glove design and formulation have produced a synthetic glove that offers improved comfort, responsiveness, tactile sensitivity with an ergonomic edge. In addition to the nitrile gloves, CLP offers latex examination gloves coated with a special polymer to reduce contact from latex proteins, lightly powdered gloves to promote easier donning, and chlorinated gloves to facilitate double gloving.\*

These gloves should be worn routinely on a single-use basis when handling biological samples, suspected carcinogens or performing laboratory experiments. Single usage of disposable gloves can preserve the integrity of precious research or clinical samples. For example, transfer of viral-articles or RNase molecules can either cross contaminate or degrade samples and compromise clinical or experimental studies and evaluations.

Regular replacement of gloves is critical.

\* Double gloving can reduce AQL from 1.50 to 0.00025 based on CLP's acceptable limits



Both our latex and nitrile gloves provide good-to-excellent protection from incidental contact with the chemicals or samples referenced. This is not an exhaustive list and it serves only as a recommended qualifying guide for our gloves. General lab safety practices should be exercised at all times.

#### General performance guidelines

##### 1. Latex

- Effective against biological samples
- Effective against water based materials
- Good incidental contact protection from chemicals

##### 2. Nitrile

- Effective against solvents, oils, greases, and some acids and bases
- Effective against biological samples
- Good-Excellent incidental contact protection overall from chemicals

Guidelines are based on protection from incidental contact under intended use.

Chemical/ Sample	Nitrile Gloves	Latex Gloves
Acetic Acid, Glacial	2	2
Acetonitrile	3	3
Acrylamide	1	1
Ammonium Hydroxide	2	2
Ammonium Chloride	1	1
APS	2	2
Beta-Mercaptoethanol	2	1
Cesium Chloride	1	1
Detergents (Saponin)	2	2
Dimethyl Sulfoxide	2	2
Ethanol 100%	2	NR
Ethidium Bromide	2	3
Fixatives (Formalin)	2	NR
Glutaraldehyde	2	2
Isopropanol	NR	2
Methanol	2	2
Mineral Oil	1	NR
Paraformaldehyde	1	2
Phenol	NR	3
PMSF	3	2
Silver Nitrate	1	1
Sodium Azide	2	2
SDS	1	1
TEMED	1	2
Tween	1	1

**Rating:** 1 = Best, 2 = Good, 3 = Adequate, NR = Not Recommended  
(Ref: Seoulin Biosciences website: <http://www.seoulin.co.kr>)



### STRONG Blue Nitrile examination gloves Series 100X

Packaging: 200 Per Box – 10 Boxes Per Case

*\*Please note, SMP-1004, size Large, has 180 gloves per box.*

Are intended for medical purposes to be worn by examiners to prevent contamination between the patient and the examiner. These gloves feature lightweight comfort for precision tasks that require hand protection, as well as textured fingertips for excellent grip. Nitrile gloves are a great alternative for those with latex allergies.

- Competes with 2-3.5 mil gloves
- Powder free
- Not made with natural rubber latex
- Tested for use with chemotherapy drugs
- Made from materials that are appropriate for food contact
- Non-sterile
- Single use only
- Ambidextrous
- Fingertip textured

#### Size(s) and Reorder Number(s):

SMP-1002 (Small)

SMP-1003 (Medium)

SMP-1004 (Large)

SMP-1005 (XL)

Meets ASTM D6319 Standard Specification for Nitrile Examination Gloves for Medical Application. Exam gloves are cleared to US market through FDA's 510(k) process.

Chemo tested per ASTM D6978 Standard Practice for Assessment of Resistance of Medical Gloves to Permeation by Chemotherapy Drugs



### STRONG Blue Nitrile examination gloves Series 180X

Packaging: 100 Per Box – 10 Boxes Per Case

Are intended for medical purposes to be worn by examiners to prevent contamination between the patient and the examiner. These gloves feature lightweight comfort for precision tasks that require hand protection, as well as textured fingertips for excellent grip. Nitrile gloves are a great alternative for those with latex allergies

- Competes with 2-3.5 mil gloves
- Powder free
- Not made with natural rubber latex
- Tested for use with chemotherapy drugs
- Made from materials that are appropriate for food contact.
- Non-sterile
- Single use only
- Ambidextrous
- Fingertip textured

#### Size(s) and Reorder Number(s):

SMP-1802 (Small)

SMP-1803 (Medium)

SMP-1804 (Large)

SMP-1805 (XL)

Meets ASTM D6319 Standard Specification for Nitrile Examination Gloves for Medical Application. Exam gloves are cleared to US market through FDA's 510(k) process. Chemo tested per ASTM D6978 Standard Practice for Assessment of Resistance of Medical Gloves to Permeation by Chemotherapy Drugs





### STRONG Blue Nitrile Exam Gloves - Pro - Powder Free

Packaging: 100 gloves in a box | 10 boxes in a case

Are great for all exam usage needs. These high-quality all-purpose blue nitrile gloves are perfect for regular everyday use. These gloves are made from materials that are appropriate for food contact. Other uses are in the salon, for cleaning, automotive services, and more. Nitrile gloves are a great alternative for those who are sensitive to latex.

- Competes with 4-5 mil gloves
- Not made with natural rubber latex
- Tested for use with chemotherapy drugs
- Made from materials that are appropriate for food contact.
- Non-sterile
- Single use only
- Ambidextrous
- Fingertip textured

#### Size(s) and Reorder Number(s):

SMP-71042 (Small)  
SMP-71043 (Medium)  
SMP-71044 (Large)  
SMP-71045 (XL)

Meets ASTM D6319 Standard Specification for Nitrile Examination Gloves for Medical Application. Cleared to US market through FDA's 510(k) process.



### STRONG Exam Black Nitrile Gloves - Pro - Powder Free

100 gloves per box | 10 boxes per case

Come in 3 choices: Classic, Pro and Premium. STRONG Black Nitrile Pro at 4 grams in weight provide a dependable barrier to the user while the textured surface makes them easy to do more delicate tasks. Ideal for medical, Jan/San, hospitality, food service, tattoo/salon, industrial/auto, and non-medical laboratory. Nitrile gloves are a great alternative for those with latex allergies.

- Competes with 3-4 mil gloves
- Powder free
- Not made with natural rubber latex
- Non-sterile
- Single use only
- Ambidextrous
- Fingertip textured

#### Size(s) and Reorder Number(s):

SMP-75042 (Small)  
SMP-75043 (Medium)  
SMP-75044 (Large)  
SMP-75045 (XL)

Meets ASTM D6319 Standard Specification for Nitrile Examination Gloves for Medical Application. Cleared to US market through FDA's 510(k) process.



### STRONG Premium Black Nitrile Gloves - Powder Free Series 7505

100 gloves per box | 10 boxes per case

STRONG Black Nitrile Gloves come in 3 choices: Classic, Pro and Premium. STRONG Premium Black Nitrile is perfect for light duty work at 5-gram weight. Ideal for medical, Jan/San, hospitality, food service, tattoo/salon, industrial/auto, and non-medical laboratory. Nitrile gloves are a great alternative for those with latex allergies.

- Competes with 4-5.5 mil gloves
- Powder free
- Not made with natural rubber latex
- Non-sterile
- Single use only
- Ambidextrous
- Fingertip textured

Size(s) and Reorder Number(s):

SMP-75052 (Small)  
SMP-75053 (Medium)  
SMP-75054 (Large)  
SMP-75055 (XL)

Meets ASTM D6319 Standard Specification for Nitrile Examination Gloves for Medical Application. Cleared to US market through FDA's 510(k) process.



### STRONG Black Nitrile Platinum examination gloves Series 160X

Packaging: 100 Per Box – 10 Boxes Per Case

*\*Please note that due to box size constraints, XXL ships with 90 gloves per box*

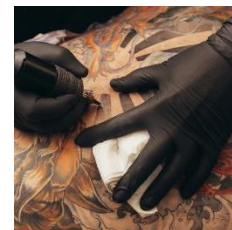
Are intended for medical purposes to be worn by examiners to prevent contamination between the patient and the examiner. These gloves feature lightweight comfort for precision tasks that require hand protection, as well as textured fingertips for excellent grip. Nitrile gloves are a great alternative for those with latex allergies.

- Competes with 6-8 mil gloves
- Powder free
- Not made with natural rubber latex
- **Made from materials that are appropriate for food contact.**
- Non-sterile
- Single use only
- Ambidextrous
- Fingertip textured

Size(s) and Reorder Number(s):

SMP-1602 (Small)  
SMP-1603 (Medium)  
SMP-1604 (Large)  
SMP-1605 (XL)  
SMP-1606 (XXL)

Meets ASTM D6319 Standard Specification for Nitrile Examination Gloves for Medical Application. Cleared to US market through FDA's 510(k) process.





### **STRONG General Purpose Latex Gloves - Powder Free Series 7201X**

100 per Box | 10 Boxes per Case

Are ideal to use in the food, janitorial, cleaning, tattoo, salon and hospitality industries.

#### **Size(s) and Reorder Number(s):**

SMP-72012 (Small)  
SMP-72013 (Medium)  
SMP-72014 (Large)  
SMP-72015 (XL)

These gloves may be safely used for repeated use when coming into contact with food per FDA rule 177.2600.



### **STRONG General Purpose Latex Gloves – Powdered Free 7202X**

100 per Box | 10 Boxes per Case

Are ideal to use in the food service, janitorial, industrial, tattoo, salon and hospitality industries.

#### **Size(s) and Reorder Number(s):**

SMP-72022 (Small)  
SMP-72023 (Medium)  
SMP-72024 (Large)  
SMP-72025 (XL)

These gloves may be safely used for repeated use when coming into contact with food per FDA rule 177.2600.





## Red Biohazard Bags

Genesee Scientific offers autoclavable biohazard bags made from high strength, 2.0 mil thick polypropylene designed to withstand temperatures up to 150°C. These bags offer the best possible protection from incidental tearing, splitting, and punctures. Compliant to regulatory standards and requirements. Built in color indicator strip indicates successful autoclaving identification (121°C, 15psi for 15 min).

- Autoclavable Biohazardous Waste Bags
- Bags contain an integral steam processing indicator that turns brown when autoclaved
- Polypropylene Film w/ Indicator, Flat Pack
- Max. Temp: 285°F
- Biohazard Labeling, Biohazard Symbol, English/Spanish
- Color: Red/Black



### Ordering Information

Catalog #	Dimensions	thickness	Capacity	Packaging
<b>88-200</b>	12"x24" (30.8x61 cm)	2 mil	2-3 gallon	500 bags / pack
<b>88-201</b>	14"x19" (36x48 cm)	2 mil	3-4 gallon	100 bags / pack
<b>88-202</b>	19"x24" (48x61 cm)	2 mil	7-10 gallon	100 bags / pack
<b>88-203</b>	25"x35" (63.5x88.9 cm)	2 mil	13-16 gallon	200 bags / pack
<b>88-204</b>	38"x46" (96.5x116.8 cm)	1.8 mil	44 gallon	100 bags / pack





# Gen Clone™ brand Cell Culture



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**Tissue Culture Dishes** Page 269

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**Cell Scrapers & Lifters** Page 271

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**Cell Culture Water** Page 280



### Cell and Tissue Culture Products

- Manufactured in an ISO Certified Class 100,000 clean Room Facility
- Made from High Quality 100% USP VI Crystal Class Virgin Polystyrene
- Certified RNase & DNase, Non-Pyrogenic, Non-Cytotoxic
- Sterilized by Gamma Irradiation to a Sterility Assurance Level of  $10^0$

#### Surface Treatment Information

A consistent tissue culture surface chemistry is produced using vacuum gas plasma treatment – a permanent modification to the growth surface that creates a hydrophilic surface for cell attachment.



### Cell and Tissue Culture



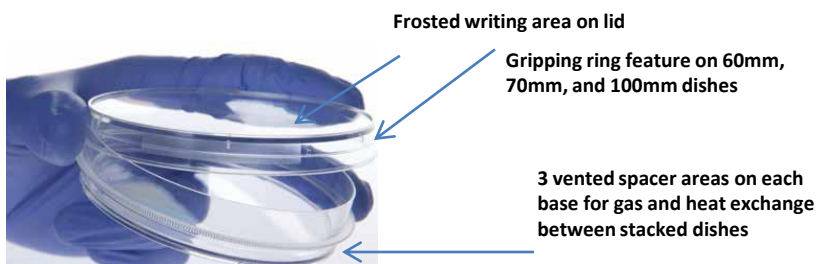
## Description

Gene Clone Cell and Tissue Culture Dishes are offered in five different sizes and are available tissue culture treated or non-treated. Distortion free, completely flat growth surfaces provide even and consistent cell growth for optimal proliferation of cells. Our unique gripping ring feature on 60, 70 and 100mm dishes offers a ridged, protruding edge on the dish base for easier handling and to prevent accidental lid lift-off. Molded spacers on the base of the dishes allow heat and gas exchange between stacked units and speed up acclimation to 37°C. Dishes are supplied with vented lids, are sterilized by gamma irradiation and are certified RNase, DNase and Pyrogen Free. Dishes are packaged in high quality resealable zip-closure bags to maintain sterility.



Cell and Tissue Culture Dishes are manufactured in a class 100,000 clean room facility in compliance with ISO 9001:2008 and EN ISO 13485:2003/AC:2007. They are made from the highest quality 100% USP VI crystal class virgin polystyrene to eliminate all extraneous materials, ensure the integrity of your cells and offer exceptional transparency and observability. Products are certified DNase, RNase Free, Non-Pyrogenic and are sterilized by Gamma Irradiation.

Dishes are packaged in easy-to-open sealed plastic sleeves. Every package is printed w/lot number for quality traceability.



TC treated by vacuum gas plasma  
– same as BD Falcon™



**Tissue Culture Treated Dishes, Vented**

Catalog	Description	Area (cm <sup>2</sup> )	Qty/Unit
<b>25-200</b>	35 x 10 mm.	8.5	10 per Sleeve/500
<b>25-260</b>	60 x 15 mm. Gripping Ring	21.2	10 per Sleeve/600
<b>25-201</b>	70 x 15 mm. Gripping Ring	36.3	10 per Sleeve/600
<b>25-202</b>	100 x 20 mm. Gripping Ring	60.8	10 per Sleeve/300
<b>25-203</b>	150 x 22 mm.	143	5 per Sleeve/100

**Tissue Culture Non-Treated Dishes, Vented**

Catalog	Description	Area (cm <sup>2</sup> )	Qty/Unit
<b>32-103</b>	35 x 10 mm.	8.5	10 per Sleeve/500
<b>32-105G</b>	60 x 15 mm. Gripping Ring	21.2	10 per Sleeve/500
<b>32-107G</b>	100 x 15 mm. Gripping Ring	60.8	10 per Sleeve/500
<b>32-106</b>	150 x 15 mm.	143	5 per Sleeve/500

### Gen Clone Cell and Tissue Culture Flasks

Olympus Cell and Tissue Culture Flasks are offered in 12.5, 25, 75 and 182cm<sup>2</sup> and are available tissue culture treated or non-treated. All flasks are sterilized by gamma irradiation and certified RNase, DNase and Pyrogen Free.

- Striation free, completely flat bases for even and consistent cell growth
- Vented spacers molded to the base allow air flow between stacked units to speed up acclimation to 37°C
- Optically clear, USP VI crystal class virgin polystyrene
- 0.22µm hydrophobic vented filter cap or 2-position plug caps available
- Flasks are graduated with a frosted writing.
- Distortion free, completely flat growth surfaces provide even and consistent cell growth for optimal proliferation of cells.

**TC treated by vacuum gas plasma**  
— same as BD Falcon™



**100% angled neck access -**  
**better for washing cells and**  
**scrapping cells**



**Lot number printed on each individual flask**

**Resealable ZipLock Bags!**  
**No More Tape!**



Treated Flasks					Suspension Flasks	
TC Treated Flasks, Vent Cap					TC Treated Flasks, Plug Cap	Non-Treated Flasks, Vent Cap
Size	Catalog	Volume	Growth Area Surface Area*	Qty/Unit	Catalog	Catalog
T12.5	25-205	25 ml	12.5 cm <sup>2</sup>	10 per Sleeve/200	25-204	25-212
T25	25-207	50 ml	25 cm <sup>2</sup>	10 per Sleeve/200	25-206	25-213
T75	25-209	250 ml	75 cm <sup>2</sup>	5 per Sleeve/100	25-208	25-214
T182	25-211	600 ml	182 cm <sup>2</sup>	5 per Sleeve/40	25-210	25-215

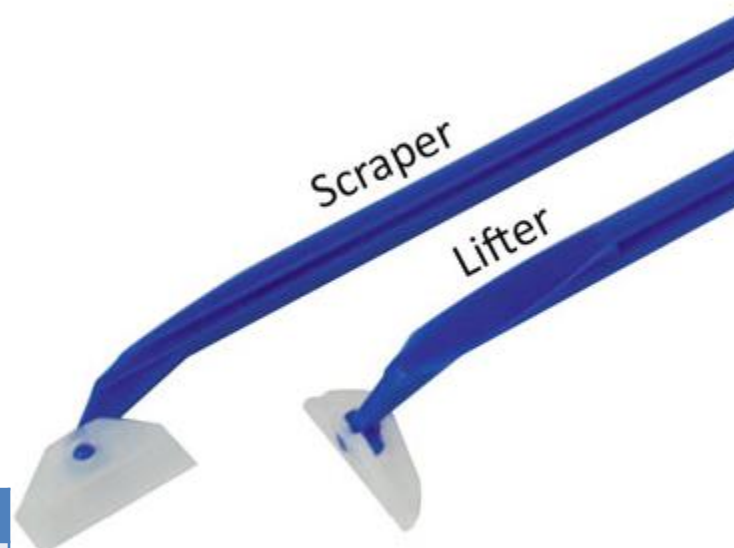
\*Suspension Flasks



### GenClone Cell Scrapers

Are designed for harvesting cells from tissue Culture Flasks, dishes or bottles. The handle is 25 cm length with a flexible blade 20 mm in width. The scraper is available with the blade positioned parallel to the handle (Scraper) or perpendicular to the handle (Lifter). With one quick turn, the pivoting blade can be switched from either parallel or perpendicular to handle position. Cell scrapers are non-pyrogenic and gamma irradiation sterilized. Packaged in individual paper/plastic wrap.

- Individually Wrapped
- 25 cm Handle Length
- 20 mm Wide Multi-Position Blade
- Gamma Irradiation Sterilized, Non-Pyrogenic.



#### Ordering Information:

Catalog #	Description	Qty / Unit
<b>25-270</b>	25 cm Cell Scrapers, Sterile	100
<b>25-271</b>	25 cm Cell Lifters, Sterile	100

#### Related Products

**Serological Pipettes,**  
For complete  
information, see page





### Gene Clone Culture Multiwell Plates

Multiwell Plates are offered in 6, 12, 24, 48 and 96 well formats and are available tissue culture treated or non-treated. Plates have striation free, completely flat well surfaces that maximize usable growth area. Each well is labeled with easy to read alphanumeric markings and features a raised rim that nests into molded condensation rings on the single position lid to reduce evaporation and prevent cross contamination between wells. Plates feature serrated edges for easy handling and an exterior stacking ring on the lid for added stability and ease of interlocking stacked plates. All plates are supplied with lid and are packaged in durable paper/plastic hermetically sealed pouches. Plates are lot number traceable, sterilized by gamma irradiation and certified RNase, DNase and Pyrogen Free.

- Striation free, completely flat bases for even and consistent cell growth
- Low evaporation lid reduces evaporation and prevents contamination
- Alphanumeric well coding on each individual well



TC treated by vacuum gas  
Plasma – same as BD Falcon™

#### Ordering Information:

Tissue Culture Treated Plates				Non-Treated Plates	
Catalog	Description	Area (cm2) / Volume	Qty/Unit		Catalog
25-105	6-Well, Flat Bottom	9.6 cm <sup>2</sup> / 17.00	100 Plates	or	25-100
25-106	12-Well, Flat Bottom	3.9 cm <sup>2</sup> / 6.80	100 Plates	or	25-101
25-107	24-Well, Flat Bottom	1.93 cm <sup>2</sup> / 3.50	100 Plates	or	25-102
25-108	48-Well, Flat Bottom	0.84 cm <sup>2</sup> / 1.55	100 Plates	or	25-103
25-109	96-Well, Flat Bottom	0.33 cm <sup>2</sup> / 0.39	100 Plates	or	25-104
25-221	96-Well, U-Bottom	0.32 cm <sup>2</sup> / 0.32	100 Plates	or	25-224



## Gen Clone PES Vacuum Filtration Systems

Bottle Top Vacuum Filter Systems are specifically designed for cell culture work and are suitable for pre-filtration and filtration of culture media and buffers. The polyethersulfone (PES) membrane offers the highest capacity, highest flow rate and lowest protein/DNA binding available. Both 0.22µm and 0.45µm pore sizes are available in three sizes of 250, 500 or 1000 ml. Filter systems feature engraved graduations, ergonomic gripping notches, wide bottle mouth with 45 mm thread, bold, black print specifying membrane and pore size and are individually wrapped in lot numbered, easy to open bags. Systems are supplied complete with bottle top vacuum filter, receiver bottle and sterile cap. Vacuum filter upper cups are also available supplied without the receiver bottle for economical convenience.

- Individually wrapped, sterile cap included
- PES membrane offers highest flow rate and lowest protein/DNA binding
- Certified non-pyrogenic and gamma irradiation sterilized
- Large mouth for easy pouring
- Recessed ergonomic gripping notches and receiver bottle



500ml System



45mm bottle neck size

### Ordering Information:

#### Complete Ready-To-Go Systems. Sterile

Catalog	Description	Qty/Unit
<b>25-225</b>	250 ml. PES 0.22µm	12 Systems/Unit
<b>25-226</b>	250 ml. PES 0.45µm	12 Systems/Unit
<b>25-227</b>	500 ml. PES 0.22µm	12 Systems/Unit
<b>25-228</b>	500 ml. PES 0.45µm	12 Systems/Unit
<b>25-229</b>	1000 ml. PES 0.22µm	12 Systems/Unit
<b>25-230</b>	1000 ml. PES 0.45µm	12 Systems/Unit

#### Filter Tops Only (Also fits 45 mm Glass Bottles!)

Catalog	Description	Qty/Unit
or <b>25-231</b>	PES, 0.22µm, 250ml, Sterile	24 Filters Top
or <b>25-232</b>	PES, 0.45µm, 250ml, Sterile	24 Filters Top
or <b>25-233</b>	PES, 0.22µm, 500ml, Sterile	24 Filters Top
or <b>25-234</b>	PES, 0.45µm, 500ml, Sterile	24 Filters Top
or <b>25-235</b>	PES, 0.22µm, 1000ml, Sterile	24 Filters Top
or <b>25-236</b>	PES, 0.45µm, 1000ml, Sterile	24 Filters Top

Gen Clone Syringe Filters

- Color coded, durable polypropylene housing
- Individually packaged in durable paper/plastic PET trays for sterility
- Gamma irradiation sterilized and certified non-pyrogenic
- 0.22µm: Sterilizing grade
- 0.45µm: Clarification and prefiltration
- The luer lock design ensures that the filter housing stays connected to the syringe during filtration and low hold-up volumes of <50ul (13 mm) and <100ul (30 mm) ensure accurate sample recovery, 13 and 30 mm sizes rest securely over the tops of 15 and 50 ml. Tubes.



PVDF Membrane

PVDF syringe filters are extremely low protein binding and for filtration of non-aggressive aqueous and mild organic solutions or where maximizing protein recovery is important. Syringe filters are rigorously quality tested for filter efficacy and housing integrity and offer reliable filtration.

- General filtration, particle separation, protein clarification
- The lowest protein-binding syringe filters available
- Low extractables and broad chemical compatibility
- Binds for less protein than nylon, nitrocellulose or PTFE

PES Membrane

- Combination of speed and extremely low protein binding
- Perfect for filtering protein solutions & tissue culture media
- Filter buffers and additives, virus suspensions, DNA, and other aqueous solutions

Ordering Information:

Catalog	Description	Diameter	Qty/Unit
25-239	Syringe Filters PVDF 0.22µm	13 mm.	75 Filters
25-240	Syringe Filters PVDF 0.22µm	30 mm.	30 Filters
25-241	Syringe Filters PVDF 0.45µm	13 mm.	75 Filters
25-242	Syringe Filters PVDF 0.45µm	30 mm.	30 Filters
25-243	Syringe Filters PES 0.22µm	13 mm.	75 Filters
25-244	Syringe Filters PES 0.22µm	30 mm.	30 Filters
25-245	Syringe Filters PES 0.45µm	13 mm.	75 Filters
25-246	Syringe Filters PES 0.45µm	30 mm.	30 Filters

DuoClick Screw-Cap Polypropylene Culture Tubes MTC Bio



- Patent pending screw closure system
- Two distinct cap positions for aerobic and anaerobic culturing
- Printed graduations
- Flat, markable screw-cap
- Rated to 4000 x g
- Sterilized by gamma irradiation

New DuoClick™ tubes from MTC Bio feature a unique, patent pending screw closure system. DuoClick tubes completely eliminate the excess force, splashing and general frustration of traditional snap-cap culture tubes. The advanced cap design includes two distinct positions for aerobic and anaerobic culturing. Just rotate the cap 1/4 turn to the first click to secure the cap in the aerobic position. Or, rotate it another 1/2 turn past the second click for a leakproof, airtight seal for anaerobic culturing. Easy to open, easy to close polypropylene culture tubes with printed graduations and markable screw-caps.

Ordering Information:		
Catalog	Description	Qty/Unit
21-137	5ml (12 x 75mm)	Bagged, 500 total; 20 Bags of 25 Tubes
21-137B	5ml (12 x 75mm)	Bulk non-sterile, 1000 Tubes and Caps/Unit
21-137I	5ml (12 x 75mm)	Individually Wrapped, 500 Tubes/Unit
21-137PS	5ml (12 x 75mm)	Bagged, 500 total; 20 Bags of 25 Tubes
21-137R	5ml (12 x 75mm)	Racked, 500 total; 10 Racks of 50 Tube
21-137RPS	5ml (12 x 75mm)	Racked, 500 total; 10 Racks of 50 Tube
21-138	14ml (17 x 100mm)	Bagged, 500 total; 20 Bags of 25 Tubes
21-138B	14ml (17 x 100mm)	Bulk non-sterile, 1000 Tubes and Caps/Unit
21-138I	14ml (17 x 100mm)	Individually Wrapped, 500 Tubes/Unit
21-138PS	14ml (17 x 100mm)	Bagged, 500 total; 20 Bags of 25 Tubes
21-138R	14ml (17 x 100mm)	Racked, 500 total; 10 Racks of 50 Tube
21-138RPS	14ml (17 x 100mm)	Racked, 500 total; 10 Racks of 50 Tube

Using antibiotics to inhibit the growth of gram-positive and gram-negative bacteria without destroying culture monolayers is essential to cell culture success. IBI Scientific offers a range of antibiotics to target *Staphylococcus*, *Streptococcus*, *Proteus*, *Pseudomonas*, and other bacterial strains. IBI Scientific offers dry antibiotics to make stock solutions for your laboratory, as well as pre-mixed sterile solutions



### AMPICILLIN SODIUM SALT, IBI SCIENTIFIC IB02040 25 G

CAS#: 69-52-3

• For use in cell culture media to inhibit gram-positive and gram-negative bacteria  
 Ampicillin Sodium salt is an antibiotic in the broad-spectrum penicillin group. Ampicillin differs from penicillin **only** by the presence of an amino group, which facilitates penetration through the outer membrane of some gram-negative bacteria.



### CARBENICILLIN DISODIUM SALT, IBI SCIENTIFIC

IB02010 1 g | IB02020 5 g | IB02025 25 g

CAS#: 4800-94-6

• For use in cell culture media to inhibit gram-positive and gram-negative bacteria  
 • This product cannot be shipped to a private residence.

Ampicillin acts by interfering directly with the turnover of the bacterial cell wall and indirectly by triggering the release of enzymes that further alter the cell wall.

Ampicillin is an antibiotic used to inhibit cell wall biosynthesis by interrupting peptidoglycan cross-linking. Ampicillin can be used in cell culture applications.

Ampicillin Sodium Salt is in powder form which makes it an economical choice that can be used in a wide range of gram-positive and gram-negative infections.

#### • Physical Specifications

**Formula Weight:** 371.39

**Molecular Formula:** C<sub>16</sub>H<sub>18</sub>N<sub>3</sub>NaO<sub>4</sub>S

**Potency:** 845 – 988 mcg/mg

**PH (1%, water):** 9.0 ± 1.0

**Moisture:** Max. 2.0%

#### Molecular Biology Specifications

**Antibiotic Inhibition/Sensitivity Assay:** Pass

#### • TECHNICAL INFORMATION:

**What temperature do you store this antibiotic?** Powder form: +4°C (Refrigerated)  
 Solution form: -20°C (Frozen)

**What is the shipping temperature?** Shipped @ room temperature: 18°-26° C (2-day shipping) with ice packs and is stored cold.

**How long is ampicillin still good at room temp?** It should be useable at room temperature for 60 hours or 2.5 days.

**What is the country of origin?** This antibiotic is from India.

**Typical stock solution** The ampicillin powder is used to make a stock solution at 50mg/ml in water. The working concentration for stringent plasmids is 20 µg/ml and 60 µg/ml for relaxed plasmids.

Stock solutions of ampicillin dissolved in water should be sterilized by filtration through a 0.22 micron filter.

IBI Carbenicillin Disodium is a semi-synthetic antibiotic which interferes with cell wall synthesis of gram negative bacteria by inactivating transpeptidases on the inner surface of the cell membrane. Carbenicillin displays low toxicity to plant tissues.

IBI Carbenicillin is commonly used as a selective antibiotic for resistant *Agrobacterium* and *E. coli* at typical concentrations of 100 – 500 µg/ml in water.

A stock solution of antibiotics dissolved in H<sub>2</sub>O should be sterilized by filtration through a 0.22-micron filter.

#### • Physical Specifications

**Molecular Weight:** 422.4

**Molecular Formula:** C<sub>17</sub>H<sub>16</sub>N<sub>2</sub>O<sub>6</sub>Na<sub>2</sub>

**pH (10 mg/ml in H<sub>2</sub>O):** 6.0 – 8.0

**Appearance:** Slightly yellow, fluffy powder

**Water Content (K.F.):** < 6%

#### • Technical Information:

**How is our carbenicillin purified?** The actual purification process for our Carbenicillin is proprietary information. Testing for purity is done by way of HPLC.



### CHLORAMPHENICOL ANTIBIOTIC IBI SCIENTIFIC IB02080 25 g

CAS#: 56-75-7

• For use in cell culture media as a broad spectrum antibiotic. Chloramphenicol antibiotic is a broad spectrum antibiotic, active against a wide variety of gram positive and gram negative bacteria, including most anaerobic organisms. This antibiotic blocks bacterial protein synthesis by inhibiting the peptidyl transferase activity of the 50S ribosomal subunit (elongation inhibition).

The antibiotic powder is used to make a stock solution at 34mg/ml in ethanol. The working concentration for stringent plasmids is 25µg/ml and 170µg/ml for relaxed plasmids.

If dissolved in ethanol, the chloramphenicol solution need not be sterilized.

#### • Physical Specifications

**Molecular Weight:** 323.13

**Molecular Formula:** C<sub>11</sub>H<sub>12</sub>Cl<sub>2</sub>N<sub>2</sub>O<sub>5</sub>

**Melting Point:** 149-153°C

**pH (2.5%, water):** 6.0 ± 1.5

**Purity:** 97.0 – 103.0%

#### **Molecular Biology Specifications**

**Antibiotic Inhibition/Sensitivity Assay:** Pass

**Identification:** Pass

**Crystallinity:** Pass

**Chromatographic Purity:** Pass

#### • Technical Information

##### Can you make a stock solution of Chloramphenicol in water?

Chloramphenicol antibiotic dissolves best in alcohol or benzene. It does not dissolve well in water. A stock solution in alcohol should be made at 10 mg/ml and then diluted with water to 1 mg/ml. Stock solutions made up of strictly water (0.25% = 7.7 mM) will degrade in sunlight, UV light or tungsten light at or near room temp over a period of 96 hours. It does NOT degrade when dissolved in alcohol or benzene.



### GENTAMYCIN SULFATE SOLUTION IBI SCIENTIFIC IB02030 20 ml

CAS#: 1405-41-0

• For use in cell culture media to inhibit gram-positive and gram-negative bacteria  
• Concentration: 50mg/ml

Gentamycin Sulfate Solution is an inhibitor in the growth of gram-positive and gram-negative microorganisms. IBI Gentamycin Sulfate is a broad spectrum antibiotic that is a more effective in-vitro bacterial inhibitor than combined streptomycin-penicillin.

Gentamycin sulfate is a water-soluble antibiotic originally purified from the fungus *Micromonospora purpurea*. IBI Scientific Gentamycin is effective against a wide variety of gram-positive and gram-negative bacteria, and is used to prevent the contamination of cell cultures by bacteria. The recommended working concentration ranges from 0.5 to 50 mg/ml.

#### • Physical Specifications

**Appearance:** Clear, colorless to light yellow solution

**pH (@25°C):** 4.5 ± 1.0

**Specific Rotation:** +107° - +121°

#### **Molecular Biology Specifications**

**Sterility:** Negative

#### • Technical Information

This antibiotic is non-toxic to tissue culture monolayers and does not inhibit virus replication. It inhibits the growth of a wide variety of gram-positive and gram-negative microorganisms, including strains resistant to tetracycline, chloramphenicol, kanamycin, and colistin; particularly the strains of *Pseudomonas*, *Proteus*, *Staphylococcus*, and *Streptococcus*.

Gentamycin Sulfate inhibits bacterial protein biosynthesis by binding to the 30S subunit of ribosome.

##### **Quality Control**

This product is cell cultured tested, has a total volume of 20ml and a solution concentration of 50mg/ml.





### G418 DISULFATE SOLUTION 20 ML, IBI SCIENTIFIC IB02060



CAS#: 108321-42-2

- Used as a selection antibiotic in cell culture gene selection applications
- Prevents protein synthesis by blocking the elongation step in prokaryotic and eukaryotic ribosomes
- Concentration: 50mg/ml
- This product cannot be shipped to a private residence.

G418 DiSulfate Solution is routinely used as a selection antibiotic in cell culture gene selection applications. G418 solution is an aminoglycoside antibiotic isolated from *Micromonospora rhodorangea* and is closely related to the gentamicins; most notably, gentamicin B1. G418 is a generic name of Geneticin®.

#### • Physical Specifications

**Molecular Formula:** C<sub>20</sub>H<sub>40</sub>N<sub>4</sub>O<sub>10</sub> · 2H<sub>2</sub>SO<sub>4</sub>

**Molecular Weight:** 692.71 g/mol

**Appearance:** Clear, colorless solution

**Source:** Biosynthetic: produced by *Micromonospora rhodorangea*

**pH (@25°C):** 4.6 - 6.0

**Optical Rotation:** +104° - +121°

**Storage:** 2-8°C

**Concentration:** 50 mg/ml

#### • Certificate of Analysis:

##### Technical Description and Characteristics:

G418 blocks polypeptide synthesis by inhibiting the elongation step in both prokaryotic and eukaryotic cells. G418 is commonly used in laboratory research to select genetically engineered cells, typically using the kanMX selectable marker.

G418 is also used to select successfully transfected mammalian cells that express the neo resistance gene in addition to the gene of interest. The neo gene encodes amino-glycoside 3'-phosphotransferase; an enzyme which confers resistance to G418 disulfate and neomycin.

#### Kill Curve / G418 Titration Protocol

- 1) Seed cells of the parental cell line in a 24-well plate at different densities (50,000 - 100,000 and 200,000 cells /ml) and incubate the cells for 24 hours.
- 2) Remove the medium and then add medium, with varying concentrations of antibiotic, to each well (0, 50, 100, 200, 400, 600, 800, and 1,000 ug/ml) and incubate at 37 deg C.
- 3) Refresh the selective medium every 3 - 4 days and observe the percentage of surviving cells over time using procedures such as EMA vs Hoechst staining, flow cytometry or MTT assay.
- 4) Determine the lowest concentration of antibiotic that kills a large majority of the cells within 14 days. This concentration should be used for selection of a stable transfected cell line.
- 5) If necessary, repeat the experiment to narrow the antibiotic concentration range.

### KANAMYCIN SULFATE, IBI SCIENTIFIC IB02120 20 G



CAS#: 25389-94-0

- For use in cell culture media to inhibit gram-positive and gram-negative bacteria
- This product cannot be shipped to a private residence.

IBI Kanamycin is a broad spectrum aminoglycoside antibiotic derived from *Streptomyces kanamyceticus*. It is used as an additive in cell culture media for the isolation of Group D Streptococci on Kanamycin Azide Agar and for selection of transformed plant cells containing the neomycin phosphotransferase on a kanamycin medium. Kanamycin sulfate can also be used as selection agent for cells transformed with kanamycin B resistance gene.

#### • Physical Specifications

**Formula Weight:** 582.58

**Molecular Formula:** C<sub>18</sub>H<sub>36</sub>N<sub>4</sub>O<sub>11</sub> · H<sub>2</sub>SO<sub>4</sub>

**Potency:** >750 mcg/mg

**pH (1%, water):** 6.5 - 8.5

**Moisture:** Max. 4.0%

#### Molecular Biology Specifications

**Antibiotic Inhibition/Sensitivity Assay:** Pass

**Chromatographic Purity:** Pass

**Crystallinity:** Pass

#### • Technical Information:

IBI kanamycin acts by binding to the 70S ribosomal subunit, inhibiting translocation.

Kanamycin sulfate is effective against gram negative and gram positive bacteria, as well as mycoplasma.

Kanamycin Sulfate is derived via microbial fermentation. No animal products or by-products are used in the manufacturing process or the fermentation media.

Product is packaged in a glass amber bottle and should be kept at 4 deg. C.





### NEOMYCIN SULFATE SOLUTION, IBI SCIENTIFIC 20 ML IB02050

**CAS#:**119-04-0

- Cell Culture Grade
  - For use in cell culture media to inhibit gram-positive and gram-negative bacteria
  - Concentration: 8.0 – 12.0mg/ml
- Neomycin Sulfate Solution is an aminoglycoside antibiotic that inhibits translation by binding to the small subunit of prokaryotic ribosomes.

It inhibits PLC, phosphatidylcholine-PLD activity, and angiogenin induced angiogenesis.

Neomycin is typically used in cell culture applications. The concentration varies from 8.0 – 12.0mg/ml.

#### • Physical Specifications

**Appearance:** Clear, colorless solution

**Formula Weight:** 614.64

**Concentration:** 8.0 - 12.0 mg/ml

**pH:** 5.0 – 7.5

#### Molecular Biology Specifications

**Endotoxin:** <0.5 EU/ml

**Sterility:** Sterile-filtered



### STREPTOMYCIN SULFATE, IBI SCIENTIFIC 25 G IB02180

**CAS#:** 3810-74-0

- For use in cell culture media to inhibit gram-positive and gram-negative bacteria
- Streptomycin is an antibiotic that binds to the S12 protein and the 30S ribosomal subunit, inhibits translocation, and elicits miscoding. Streptomycin is for use in cell culture applications.

The streptomycin powder is used to make a stock solution at 10mg/ml in water. The working concentration for stringent plasmids is 10µg/ml and 50µg/ml for relaxed plasmids.

Stock solution of streptomycin dissolved in water should be sterilized by filtration through a 0.22 micron filter.

#### • Technical Information:

##### What is the half-life of Streptomycin?

At 37°C, the half life is 4 days.



### TETRACYCLINE HYDROCHLORIDE

**Model Number** IB02200

**CAS#:** 64-75-5

- For use in cell culture media to inhibit gram-positive and gram-negative bacteria
- Tetracycline Hydrochloride is an antibiotic that inhibits protein synthesis (elongation) by preventing the binding of amino-tRNA to ribosome. Tetracycline is for use in cell culture applications.

The tetracycline powder is used to make a stock solution at 5mg/ml in water. The working concentration for stringent

plasmids is 10µg/ml and 50µg/ml for relaxed plasmids.

If dissolved in ethanol, the antibiotic solution need not be sterilized.

Magnesium ions are antagonists of tetracycline. Use media without magnesium salts (e.g. LB medium) for the selection of bacteria resistant to tetracycline.

#### **Physical Specifications**

**Molecular Formula:** C<sub>22</sub>H<sub>24</sub>N<sub>2</sub>O<sub>8</sub>HCl

**Molecular Weight:** 480.90

**Potency:** Min. 900 µg/mg

**pH (1%, water):** 2.3 ±0.5

**Moisture:** Max. 2.0%

**4-epianhydrotetracycline:** Max. 2.0%

#### Molecular Biology Specifications

**Antibiotic Inhibition/Sensitivity Assay:** Pass

#### • Technical Information

This antibiotic is non-toxic to tissue culture monolayers and does not inhibit virus replication. It inhibits the growth of a wide variety of gram-positive and gram-negative microorganisms, including strains resistant to tetracycline, chloramphenicol, kanamycin, and colistin; particularly the strains of *Pseudomonas*, *Proteus*, *Staphylococcus*, and *Streptococcus*.

Gentamycin Sulfate inhibits bacterial protein biosynthesis by binding to the 30S subunit of ribosome.


#### **Quality Control**

This product is cell cultured tested, has a total volume of 20ml and a solution concentration of 50mg/ml.



IBI Scientific’s Cell Culture Grade Pure Water

Is ideal for nuclear transfer, transfection, transformation, cell, and tissue culture. IBI Scientific’s Cell Culture water begins with a pretreatment process of double distillation followed by deionization then autoclaved and filtered through a 0.1um membrane then autoclaved again in the final packaging. Sterility of the water is measured by SAL (Sterility Assurance Level) and validated to 10-6. LAL testing certifies endotoxin levels to less than 0.005 EU/ml by turbidimetric assay. IBI Cell Culture water is certified to be one of the lowest endotoxin levels in the industry. Available in multiple sizes, including a 10L polypro jug with a handle that can be easily prepped for admittance into critical environments.

	Cell Culture Grade Pure Water	
	Catalog #	Description
	IB42010	<b>IBI Scientific’s Cell Culture Grade Pure Water</b> Cell Culture water is ideal for nuclear transfer, transfection, transformation, cell and tissue culture, LAL testing and all other aqueous solution preparations that require stringent quality control.
	IB42011	
	IB42012	
	IB42020	IBI Cell Culture water is developed using the latest in water purification technology including reverse osmosis, EDI, UV Light and ultra-filtration all built into one large system. The EDI module contains special resins to deionize the water and achieve 18 meg-ohm of resistivity. The water then passes through a 0.2 micron filter before being exposed to a specially tuned UV light frequency that will oxidize all organic material. After UV oxidation the water passes through an ultra-filtration membrane which removes all oxidized organics and renders the bacterial endotoxin levels in the water to less than 0.005 EU/ml. Ultrafiltration also produces Nuclease Free Water, meaning No DNase, RNase or Protease. Water samples from this system are regularly tested and validated by 2 independent laboratories testing for nuclease activity and bacterial endotoxin load. IBI internal quality control methods are tested and validated against the results of the independent laboratories using same samples.
	IB42021	
	IB42030	
		IBI cell culture water is bottled in sterile bottles, aseptically, inside an ISO 7 sterile suite inside a fume hood. IBI conducts quality control testing for each specific lot of cell culture water and the results are noted on the certificate of analysis. IBI also conducts 14-day USP sterility testing on all cell culture water products.

Size

1 L  
6 x 1 L  
12 x 1 L  
2 L  
6 x 2 L  
10 L

RWD



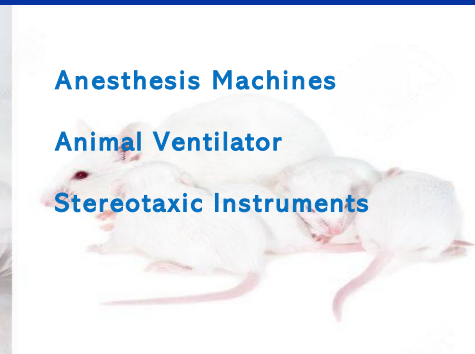
## Lab Animal Research Equipment



Anesthesia Machines

Animal Ventilator

Stereotaxic Instruments



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**R500 Small Animal Anesthesia Machine**

Is designed for the laboratory who are looking for a cost-effective instrument in rodent surgeries. Featured with compact design, flexible operation, high accuracy vaporizer, the anesthesia machine is ideal for small animals within 7kg, like rats, mice, mouse, hamsters, guinea pigs, rabbits, cats. More than 10,000 have been installed in research institutions and universities around the world, such as Yale University and Harvard University.

**Features:**

- Flexible design, suitable for the laboratory with limited space.
- Stable for the process of rodent surgeries , by adjusting the depth of anesthesia in any time.
- Reducing surgical time, it can realize induction and recovery of anesthesia in 2-5 minutes.
- Extensible gas sources, without limited for laughing gas, carbon dioxide, nitrogen, etc.

**Technical Specifications:**

- Applicable to rats, mice, hamsters, guinea pigs, rabbits, cats and other animals within 7kg
- 0.05-1L/min, 0.1 to 4 L/min , 0.2-10L/min O2 flowmeter
- 10L/min O2 flush
- Three kinds of filling type vaporizer is optional-Pour Fill , Easy Fill and Key Fill
- Concentration range: 0-5% or 0-8%, Accuracy range is low than 10%
- Work temperature:10-35°C



**R500IP Compact Small Animal Anesthesia Device-Pour Fill, 0-4 L**



**R500IK Compact Small Animal Anesthesia Device-Key Fill, 0-4 L**

R550 Multi-output Animal Anesthesia Machine	Model	Product Description	Remarks
	R550IE	Enhanced Small Animal Anesthesia Device-Isoflurane, Easy Fill, 0-4L	Contains connection tubing for mask&induction chamber
	R550SE	Enhanced Small Animal Anesthesia Device-Sevoflurane, Easy Fill, 0-4L	



**TAIJI Small Animal Anesthesia Machine**

The small laboratory animal anesthesia machine TAIJI is an upgraded model newly launched by RWD. The machine is ready to use right out of the box, no need for installation. The upgraded dual channel control makes animal experiment easier and faster to conduct.

**Features:**

Integrated design and compact structure.

Each vaporizer is independently debugged, with reliable quality and stable concentration output, independent of changes in flow, temperature, and pressure.

The inclined design of oxygen flush button saves effort in pressing.

Easy Fill dosing method with strong sealing performance.

Optimized interface connection for smooth operation.

Upgrade dual channels: independent switches for chamber and mask channels to improve experimental efficiency.

Technical Parameters	
Flowmeter specifications	0-4L/min
Concentration range	Isoflurane: 0-5% ; Sevoflurane:0-8%
Concentration output accuracy	$\pm 0.1$ (0-1%) ; $\pm 0.15$ (>1%)
Vaporizer capacity	$\geq 120$ ml
Operating temperature range	10-35°C
Size	260*220*300mm





**R550 Multi-output Animal Anesthesia Machine**

R550 is a Multi-output Laboratory Small Animal Anesthesia Machine, which is suitable for the simultaneous anesthesia of 1-5 rats, mice, cats, rabbits, and other animals. Each channel for anesthesia can be controlled independently. It will help you save a lot of time during research. The gas flow of the induction box can be adjusted independently, with a range of 0-2.0L/min.

**Features:**

- Multi-channel design can meet the needs of multiple animals(1-5 small animals) simultaneously
- Accurate oxygen flow meter, Flow control range: 0-4L/min available
- High accuracy vaporizer (Each one has an independent test report)
- Gas toggle switch, button switching gas path, more than 100,000 times of service life.
- Quick oxygenation switches to remove residual anesthetic mixture in the tube or anesthesia induction chamber.
- Oxygen or air can be chosen as a gas supply.
- Easy Fill, Key Fill for adding drugs is optional.
- Can be upgraded into a portable anesthesia machine to save space and facilitate movement
- The gas flow of the induction chamber can be adjusted independently, ranging from 0 to 2.0 L/min.
- Toggle switch, quick switching of the gas circuit, 100 thousand times of life

**Technical Specifications:**

- Applicable to rats, mice, hamsters, guinea pigs, rabbits, cats and other animals within 7kg
- meet the needs of multiple animals(1-5 small animals) simultaneously
- 0 to 4 L/min O<sub>2</sub> flowmeter
- 10L/min O<sub>2</sub> flush
- Three kinds of filling type vaporizer is optional-Easy Fill and Key Fill
- Anesthesia Concentration range: 0-5% or 0-8%, Accuracy range is low than 10%
- Work temperature:10-35°C

R550 Multi-output Animal Anesthesia Machine	Model	Product Description	Remarks
	R550IE	Enhanced Small Animal Anesthesia Device-Isoflurane, Easy Fill, 0-4L	Contains connection tubing for mask&induction chamber
	R550SE	Enhanced Small Animal Anesthesia Device-Sevoflurane, Easy Fill, 0-4L	





### R620-S1 Veterinary Inhalation Anesthesia Machine

R620-S1 is one of the most popular models among the global 30,000+ veterinarians, applicable to veterinary use, for animals within 100kg such as dogs, cats, pigs, monkeys, rodents, reptiles, birds, etc. With minimal operation design, the vet shall feel easy, safe, and reliable to perform surgery on animals.

#### Features & Benefits:

- High accuracy vaporizer, each one has an independent report
- APL valve for quick-occlusion, convenient for intraoperative emergency needs
- Rail-mounted CO<sub>2</sub> absorber, so easy to install and disassemble
- 0-4L/min flow meter, red cylindrical float, stable and easy to read
- Good waste gas scavenging system, remove waste anesthesia gases from the operating room
- Simultaneously equipped with rebreathing and non-rebreathing circuit systems, and can be shifted by one switch
- Two options for pole mounts: five-foot base/H-base
- Support hanging E-type oxygen cylinder
- Convenient monitor shelf

#### Technical Specifications:

- Applicable to animals that weight within 100kg.
  - 0.1 to 4 L/min O<sub>2</sub> flowmeter
  - 10L/min O<sub>2</sub> flush.
  - APL valve can be closed quickly with one button.
  - 2100cc CO<sub>2</sub> absorber.
  - Three kinds of filling type vaporizer is optional-Pour Fill, Easy Fill and Key Fill.
- Work temperature: 10-35°C.

CATALOG	DESCRIPTION
<b>R620-S1-A</b>	R620-S1 Series Mounting Assembly with O <sub>2</sub> Flowmeter (0.1-4LPM)_EN
<b>R580S</b>	Vaporizer- Pour Fill- Cagemount <b>Remarks:</b> Can be changed to other vaporizer
<b>R580-IO</b>	Vaporizer Endcaps (1 pair)
<b>R510-31</b>	Gas Filter Canister, Large
<b>R600-ET</b>	Cuffed Endotracheal Tubes (1 set)
<b>R600-NL-0.5L</b>	Reusable Non Latex Breathing Bag, 0.5L
<b>R600-NL-1L</b>	Reusable Non Latex Breathing Bag, 1L
<b>R600-NL-2L</b>	Reusable Non Latex Breathing Bag, 2L
<b>R-BC-DL</b>	Breathing Circuit Duo-limb, 22mm(M)/15mm(F), 1.5m
<b>R-NBC-F(JR)</b>	Mapleson F Non-rebreathing Circuit (Jackson-Rees)
<b>R-CT-18</b>	Corrugated Tube – ID 22.0mm, L1.2m



### R640 Flexible Veterinary Anesthesia Machine-Wall Mount

•R640 is only used in animal research or veterinary medical fields, which is an excellent choice for Non-operating room anesthesia, like Treatment Room, Imaging Room, Anesthesia Preparation Room and Feline Specialist Clinics. It can effectively improve the treatment rate and the medical experience of the owner and animals.

#### Features:

1. Wall mount, ideal for limited space
2. Acyclic inhalational anesthesia system designed for anesthesia outside the operating room
3. Non-rebreathing circuit: ensure fast induction, quicker wake up and recovery
4. Embedded oxygen flush valve: Oxygen flush with safety restrictor
5. 10L flow meter: Ideal for animals within 50kg

#### Technical Parameters:

- Applicable to animals that weight within 100kg.
  - 0.1 to 4 L/min O<sub>2</sub> flowmeter
  - 10L/min O<sub>2</sub> flush.
  - APL valve can be closed quickly with one button.
  - 2100cc CO<sub>2</sub> absorber.
  - Three kinds of filling type vaporizer is optional-Pour Fill, Easy Fill and Key Fill.
- Work temperature:10-35°C.

CATALOG	DESCRIPTION
<b>R640-H</b>	R640 Series Mounting Assembly
<b>R582S</b>	Vaporizer – Easy Fill – Cagemount <b>Remarks:</b> Can be changed
<b>R580-IO</b>	Vaporizer Endcaps (1 pair)
<b>R-NBC-F(JR)</b>	Mapleson F Non-rebreathing Circuit (Jackson-Rees)
<b>R600-NL-3L</b>	Reusable Non Latex Breathing Bag, 3L
<b>R600-NL-1L</b>	Reusable Non Latex Breathing Bag, 1L
<b>R-CT-18</b>	Corrugated Tube- ID 22.0mm, L1.2m



### R640-S1 Economical Veterinary Anesthesia Machine

Is an economical veterinary anesthesia machine designed with good performance but competitive price. Applicable to clinical anesthesia use for animals within 100kg, such as dogs, cats, pigs, monkeys, rodents, reptiles, birds, etc.

#### Features & Benefits:

- Compact structure & simple operation
- Support re-breathing circuit and non-rebreathing circuit (Standard configuration: re-breathing circuit 1.5m)
- Pressure gauge — Constantly monitoring the circuit pressure
- Oxygen flush button — Preventing emergencies
- Freewheel with lock — More stable
- Five-foot base/ Four-foot base/Wall-mount Holder is available

#### Technical Parameters:

- Applicable to animals that weight within 100kg
- Two options available: semi-open and close anesthesia modes
- 0 to 4 L/min O<sub>2</sub> flowmeter
- 10L/min O<sub>2</sub> flush
- 2100cc CO<sub>2</sub> absorber
- Three kinds of filling type vaporizer is optional-Pour Fill, Easy Fill and Key Fill
- Work temperature: 10-35°C

### Ordering Information

CATALOG	DESCRIPTION
R640-S1-A-S	R640-S1 Series Mounting Assembly (Silver) with O <sub>2</sub> Flowmeter (0.1-4LPM) <b>Remarks:</b> Can be changed to the red one
R580S	Vaporizer- Pour Fill- Cagemount <b>Remarks:</b> Can be changed
R600-NL-1L	Reusable Non Latex Breathing Bag, 1L
R-BC-DL	Breathing Circuit Duo-limb, 22mm(M)/15mm(F), 1.5m
R-CT-18	Corrugated Tube – ID 22.0mm, L1.2m
R580-IO	Vaporizer Endcaps (1 pair)
R640-S1-MS-S	Monitor Shelf (for R640-S1) <b>Optional</b>
R510-31	Gas Filter Canister, Large <b>Optional</b>
R-NBC-F(JR)	Mapleson F Non-rebreathing Circuit (Jackson-Rees) <b>Optional</b>
R-CH	Holder for canister <b>Optional</b>



**R650 Veterinary Anesthesia Machine**

Adhering to the concept of making animal anesthesia safer, easier and more reliable, R650 is committed to leading a new experience in animal anesthesia. It is applicable to clinical anesthesia of dogs, cats, pigs, monkeys, rodent, reptiles, birds, etc.

**Features:**

- High-accuracy Vaporizer: Each unit undergoes comprehensive factory inspection, ensuring utmost precision
- One-click doctrine: APL valve closes with one click, breathing circuit switches with one click
- The layout of function keys is very friendly. The airway pressure gauge, APL valve, etc. are all concentrated on the front panel, which is clear at a glance.
- Highlight safety pressure warning with green, yellow and red signs that make it easier to identify excessive system pressure for both circuits
- Compact installation of monitor, ventilator, oxygen concentrator, etc
- Concealed pipeline arrangement, minimizing exposure and leakage risks

**Technical Parameters:**

Item	Specification
vaporizer	Output concentration: 0-5vol,%( Isoflurance); 0-8vol,%( Sevoflurance)Working temperature: 10-35°CCapacity: 120Mbetween highest and lowest mark
Oxygen flowmeter	0.1-4L/min
Pressure Gauge	-20cmH2O-100cmH2O
CO2 absorber	2.1L
APL valve	0-70cmH2O
Oxygen supply pressure	<0.5Mpa
Waste gas canister	Net Weight 800 g, can absorb 200 g
Oxygen flush	10-15L/min

**Ordering Information**

Catalog	Description
<b>R650-IE</b>	Veterinary Anesthesia Machine-Pole Mount, Isoflurane, Easy Fill
<b>R650-IK</b>	Veterinary Anesthesia Machine-Pole Mount, Isoflurane, Key Fill





### R415 VentStar Small Animal Ventilator

R415 is a mechanical ventilator used to assist animal respiration, suitable for mice, rats, and guinea pigs, and other animals weighing 10g-1kg.

It is widely used in basic medical research, clinical medicine, animal medicine and other scientific research experiments (such as myocardial ischemia model making, lung function evaluation).

#### Features:

1. Suitable for mice to guinea pigs range from 10g to 1kg.
2. Convenient for the setting of animal ventilator data by inputting animal weight.
3. Built-in VCV and PIPCV working mode.
4. Real-time graphical display of tracheal pressure.
5. Touch Screen with a 75-degree visual surface design for easy operation.
6. Provide safe and effective intermittent positive pressure ventilation (IPPV), volume and pressure modes are available.
7. Sound, intelligent text, error code and other fault alarm alerts

#### Ordering Information

CATALOG	DESCRIPTION
R415	Small Animal Ventilator
R415-AP	Accessory package for Anesthesia and Ventilator

#### Technical Specifications:

Suggested Weight Range	10g~1kg
Species	Mouse/Rat~Guinea Pig
Tidal Volume Range (TV)	0.05ml~5ml Resolution: 0.001ml
Peak Inspiratory Pressure (PIP)	1~50cmH <sub>2</sub> O Resolution: 1 cmH <sub>2</sub> O Accuracy: ±0.7 cmH <sub>2</sub> O
PEEP	0~10 cmH <sub>2</sub> O Resolution: 1 cmH <sub>2</sub> O
Breath Rate (bpm)	10~300 bpm
I:E Ratio	20~80%
Sigh Breath	Frequency: Every 10~999 or Manual Volume: 0~20% of tidal volume (in volume mode) or PIP (in pressure volume)
Display	7" LCD touchscreen, resistive
Remote Communication	RS-485
Power Supply	100~240VAC, 50/60Hz
Input Power	24V DC, adaptor: 40W Max
Safety Alarms	Over-/Under-pressure, occlusion, high PEEP
Dimensions	320*210*180mm
Weight	5.1kg
Operating Temperature	4°C~40°C (40°F~104°F)
Operating Humidity	20~80%, non-condensing
Storage Temperature & Humidity	-10°C~70°C (14°F~158°F), 20%~80% RH, non-condensing





### R419 Intelligent Animal Anesthesia Ventilator

Built-in dog and cat standard ventilation parameters, veterinarians only need to enter the animal's weight, and then other parameters will be matched automatically such as respiratory rate, tidal volume, and peak airway pressure.

R419 has both VCV and PIPCV modes. It provides more flexible ventilation solutions for veterinarians and animals. Furthermore, it also has a unique APNEA mode. This mode does not interfere with the spontaneous breathing of the animal and is especially suitable for the wake period.

Application: Operating room, Endoscopic operating room, CT room, Teaching hospital, etc.

#### Features:

- Adjustable power supply (110/220v)
- Lightweight & portable
- Provides safe & effective intermittent positive pressure ventilation (IPPV)
- Provides internal battery power for up to 4 hours
- 3 modes: VCV/PIPCV/APNEA
- Equipped with 2 different sized bellows – 20-300ml and 300-1500ml
- Respiratory rate (2-60BPM) Respiratory ration (1:1.-1:1:4.0) Airway pressure rate \_5-35cmH2O)

#### Benefits:

1. More flexible ventilation solution, Allow vets to choose VCV or PIPCV according to the actual situation of the case, or choose whether to keep the animal's spontaneous breathing according to the surgical stage.
2. Touch-sensitive screens make the data inputting much faster than traditional knob adjustment and bring a comfortable human-computer interaction experience.
3. Save operation time, more convenient experience. Especially for vets who are not very familiar with ventilation parameters. They can directly refer to the built-in data and easily obtain mechanical ventilation skills.
4. Highly compatible Can be used with all RWD anesthesia machines and other brands of anesthesia machines.

#### Technical Parameters:

Application	Patient weight <=100kg
Gas supply pressure	41-87Psi
Respiration rate	2-60bmp(adjustable)
Tidal volume output	20-1500ml(adjustable)
I : E	1 : 1.1-1 : 4.0(adjustable)
Peak inspiratory pressure	5-35cmH2O
Trigger pressure	-9.0~-1.0cmH2O
Touch color screen	5 inch, 800 × 480
Dimension	253mm×224mm×112mm
Weight	3.22kg
Power supply	110v-220v

#### Ordering Information

CATALOG	DESCRIPTION
<b>R409-TC</b>	T-connector-9/16
<b>R409-AH-80</b>	O2 hose-1D8.0-M16*1.5-9/16 connector, 1m
<b>RV-PEEP</b>	Mechanical Ventilation PEEP Valve <b>Remark:</b> Optional





### R420 Veterinary Electric Turbo Ventilator

As a mechanical ventilation device, this is definitely a veterinary ventilation innovation! With high-performance turbine drive, R420 ventilator no longer needs driven gas! It's a good solution to gas consumption problem of traditional ventilators. In addition, its easy-to-use working modes and comprehensive monitoring of animal ventilation state can ensure safe ventilation.

### Technical Parameters:

#### Features:

- Turbo Drive:** Electronically driven by a high-performance turbine, no more driven gas
- Precise ventilation:** Minimum tidal volume down to 4 mL, more friendly to tiny animals.
- Smart preset:** Once inputting animal weight, smart respiratory parameters can be called up.
- Guard "breathing" safety:** Accurate and continuous monitoring of respiratory status, such as airway pressure – time chart, minute volume, EtCO<sub>2</sub>, and etc.
- Multiple alarms:** Multiple alarms and clear handling prompts ensure the safety of mechanical ventilation
- PEEP function:** Help veterinarians solve low SpO<sub>2</sub> problems during surgery
- Auto system leak test :** Graphical guidance for quick start
- Remote control of inspiratory hold:** During a CT scan of the chest or abdomen, help the animal to hold the inspiration and complete the CT scan

### Ordering Information

CATALOG	R420	R420-Plus	R420-Pro
Smart preset	•	•	•
VCV, PCV and APNEA modes	•	•	•
PEEP	•	•	•
Sidestream EtCO <sub>2</sub> monitoring	○	•	•
INSP. HOLD remote control	○	○	•

Included • Excluded ○

Item	Specification
Working principle	Turbo drive
Size	291mm×336mm×462mm
Net weight	8.5kg
Animal weight range	0.4 kg-150 kg
Respiratory rate	2~60bpm
I:E	1 : 1.0-1 : 4.0
Tidal volume	4-1500 ml
Peak inspiratory pressure	5-50 cmH <sub>2</sub> O
PEEP	3~20 cmH <sub>2</sub> O, OFF
Trig pressure	PEEP OFF: -10~ -1cmH <sub>2</sub> O, OFF ; PEEP ON: -10~ -4cmH <sub>2</sub> O, OFF
Touch screen	7inch, 1024*600px
EtCO <sub>2</sub> measuring range	Measuring range :0mmHg – 114 mmHg
EtCO <sub>2</sub> sample flow rate	75mL/min



## 71000 Automated Stereotaxic Instrument



71000 is an automated and intelligent stereotaxic instrument with high precision (1  $\mu\text{m}$ ). The software has built-in rat and mouse brain atlas and automatic procedures (skull window, tissue removal and automated injection procedure), which can be observing the position of the probe relative to the brain area is convenient and efficient, and the operation is easy to use, greatly reducing the errors and damage caused by manual operation. In addition, it has an anti-collision function to prevent animal damage caused by wrong movement, which is safer.

### Key Benefits

- **Precision:** 1 micron resolution.  
Motor instead of manual, precise control of displacement.
- **Precise Positioning Without Leveling:** Atlas Calibration Function, accurate positioning without leveling.
- **Atlas Integration:** Visualization of probe displacement.
- **Tiltable Injection:** Manipulators Tilt Function, no need to manually calculate the positioning path.
- **Automated Functions:** Automated procedures such as Skull Window, Tissue Removal, and Automated Injection programs are more efficient and convenient.
- **High Repeatability**

### Specifications:

Working environment	Temperature: 5°C~40°C
	Humidity: 15%~95% (non-condensing)
	Air pressure: 57 kPa ~ 106 kPa
Storage environment	Temperature: -20°C~60°C
	Humidity: 10%~9% (non-condensing)
	Air pressure: 50 kPa ~ 106 kPa
Power supply	AC power: 90 V~264 V, 50/60 Hz
	DC power: 24 VDC, 1.5 A, 36 W
	The voltage fluctuation does not exceed 1% of the working voltage range.

### Ordering Information

Category	Model	Product Description	Remark
Stereotaxic host (without accessories)	<b>71001-S</b>	Automated Stereotaxic Instrument, SGL.M, Automatic Injection	Left manipulator and nanoliter injection pump included, without adaptor, ear bars, holder and mask
	<b>71000-S</b>	Automated Stereotaxic Instrument, SGL.M	Left manipulator, without adaptor, ear bars, holder and mask
	<b>71001-D</b>	Automated Stereotaxic Instrument, Dual.M, Automatic Injection	Two manipulators and nanoliter injection pump included, without adaptor, ear bars, holder and mask
	<b>71000-D</b>	Automated Stereotaxic Instrument, Dual.M	Two manipulators, without adaptor, ear bars, holder and mask
Required accessories (optional)*	<b>68055</b>	Mouse Adaptor	
	<b>68030</b>	Mouse/Neonatal Rat Adaptor	
	<b>68057</b>	Mouse Anesthesia Adaptor	
	<b>68021</b>	Rat Adaptor	
	<b>68053</b>	Rat Anesthesia Adaptor	
	<b>68301</b>	Rat 18° Ear Bars	
	<b>68306</b>	Mouse 60° Ear Bars	
	<b>68201</b>	Standard Probe Holder-Corner	
	<b>TRA-220</b>	Tissue Removal Optional Kit (220V)	Optional when using tissue removal procedure, including needle connector, holder (68202), vacuum pump-GM-0.5II -220V-50HZ, liquid storage tank, connecting tube, needle.
	<b>TRA-110</b>	Tissue Removal Optional Kit (110V)	Optional when using tissue removal procedure, including needle connector, holder (68202), vacuum pump-GM-0.5II -110V-50HZ, liquid storage tank, connecting tube, needle.
	<b>71000-LT</b>	Laptop for Automated Stereotaxic Instrument (software included)	i3-1215U/8G/256G/WIN10/Set display/14"





### 69100 Rotational Digital Stereotaxic Frame for Mice and Rat

The mouse head can be easily rotated flexibility so as to adjust the level of the skull. The accuracy of mediolateral rotation perfectly solves the bleeding problem when you inject through the venous sinus. Alignment Indicator can feedback whether the height of the animal's head is horizontal. Centering Scope helps find Bregma and Lambda points. And you don't need to set up Bregma repeatedly.

#### Features:

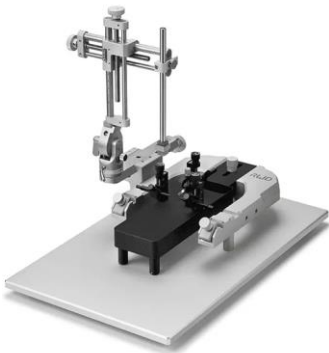
1. Fitted with a sagittal positioning plate design, To minimize the levelness, inclination and alignment of the skull.
2. Apparatus improves experiment efficiency, and the fixation process in animals is not repeated.
3. More detailed five-dimensional space positioning can meet the needs of other sites.
4. The operation arm has been tested by the motor for 100,000 times, which makes it more durable.
5. With 40X Central Magnifier and Alignment Indicator, the skull flattening speed is faster and the brain area positioning accuracy is higher.
6. Can be combined with inhalation anesthesia machine, animal mortality is low, the risk of surgery is small.

#### Technical Specifications:

Item	Description
Tri-axial displacement Range in Sagittal plate (X, Y, Z axis)	30mm
left and right rotation Angle adjustment range in Sagittal plate	$\pm 30^\circ$
Swing the Angle up and down to adjust the range in Sagittal plate	$\pm 10^\circ$
horizontal Angle adjustment range in Center floor	$\pm 10^\circ$
Displacement distance of operating arm (X, Y, Z axis)	80mm
Plate size	400mm X 325mm
The mirror is still served at magnification	40X
Alignment Indicator resolution	0.01mm

#### Ordering Information

Catalog	Description
<b>69104</b>	Rotational Digital Stereotaxic Instrument for mouse, Single M.
<b>69105</b>	Rotational Digital Stereotaxic Instrument for mouse, Dual M.
<b>69106</b>	Rotational Digital Stereotaxic Instrument for Rat, Single M.
<b>69107</b>	Rotational Digital Stereotaxic Instrument for Rat, Dual M.
<b>Accessories:</b>	
<b>69133</b>	40X Central Magnifier
<b>69134</b>	Alignment Indicator
<b>69136</b>	Operating Platform
<b>69110</b>	Mouse Anesthesia Adapter with Tubing (<30g)
<b>69111</b>	Mouse Anesthesia Adapter with Tubing (30~70g)
<b>69112</b>	Rat Anesthesia Adapter with Tubing
<b>69113</b>	15°Angle Adaptor
<b>69114</b>	60°Ear Bars for Mouse, One pair
<b>69115</b>	18°Ear Bars for Rat, One pair



Standard Stereotaxic Instruments

Is the basic equipment of neuroscience research(100 micron resolution) . The “U”-shaped frame design ensures stability. Replace the rat and mouse adaptor to realize the positioning of the brain area of the rat and the mouse.

- Unique UP indicator to prevent incorrect operation
- Double-lead screw design, more stable and accurate operation
- Relieve eyestrain by light interrupted
- Curved nose clamp secure the animal firmly
- Adaptors of rats, mice, birds, cats and other different animal are optional

Technical Specifications

1. Adaptors available for rat, mouse, rabbit, guinea pig, etc.
2. Working distance in each dimension is 80 mm with precise alignment to 0.1mm resolution.
3. Vertical direction: 180° rotation and lock at any angles.
4. Horizontal direction: 360° rotation and lock at any angles.
5. Dual-lead screws ensure stable, accurate and smooth manipulation.
6. Accuracy and flexibility can be maintained at variable temperatures.
7. Extended base plate (400mm x 255mm) is applicable for a variety of animal sizes.
8. Unique anti-clockwise UP mark engraved in the knob prevents incorrect operation.
9. Vertical lock and fixing knob are separated to ensure accurate function at any angle.
10. To ensure a precise designed lateral rotation operating space, the distance between knob and the U-shaped frame is 28mm.
11. Laser engraved scales enable comfortable reading.
12. Curved nose clamp design secures the head of animals.
13. Ear bar locked plate pressing instead of clamping ensures more stability.
14. Syringe pump, micro camera and drill can be attached to instruments.

Ordering Information

CATALOG	Product Description
<b>Stereotaxic host (without accessories)</b>	
68801	<b>Standard Stereotaxic Instrument, SGL M</b> <b>Remark:</b> Standard configuration, contains 68861N base, 68401 3-axis manipulator-left, without adaptor, ear bars, holder and mask.
68802	<b>Standard Stereotaxic Instrument, Dual M</b> <b>Remark:</b> Standard configuration, contains 68861N base, 68401 3-axis manipulator-left and 68402 3-axis manipulator- right, without adaptor, ear bars, holder and mask.
<b>Required accessories (optional)*</b>	
68055	Mouse Adaptor
68030	Mouse/Neonatal Rat Adaptor
68057	Mouse Anesthesia Adaptor
68021	Rat Adaptor
68053	Rat Anesthesia Adaptor
68301	Rat 18° Ear Bars
68306	Mouse 60° Ear Bars
68201	Standard Probe Holder-Corner, clamping range: 0.3-1.5mm.
68217	Cannula Holder, clamping diameter: 3.5mm. <b>Remark.</b> The clamping part is made of plastic.
68205	Cannula Holder, clamping diameter: 3.5mm. <b>Remark:</b> The clamping part is made of metal.
68214	Ceramic Ferrule Holder, clamping diameter: 1.25mm.
68215	Ceramic Ferrule Holder, clamping diameter: 2.5mm.
68206	General Probe Holder, clamping range: 3-12mm.
68218	Syringe Holder, the syringe barrel clamping range is 6mm-12mm, and the syringe needle clamping range is 0.3mm-1.5mm.
68605	Microdrill Holder, clamping diameter: 14.5mm. <b>Remark:</b> Suitable for 78001 microdrill.





## Digital Stereotaxic Instruments

The desktop digital stereotaxic instrument adds a digital display module on the basis of the standard type. The displacement sensor can display the displacement more accurately, reducing the tedious steps of manual reading. The displacement accuracy reaches 10  $\mu$ m, and the origin can be set arbitrarily within the range.

## Technical Specifications

1. Adaptors available for rat, mouse, rabbit, guinea pig, etc.
2. LCD digital display, real-time shows displacement distance, accuracy 10 $\mu$ m
3. One key to reset, no secondary readings and calculations
4. Powered by AA battery, no electronic interference
5. Working distance in each dimension is 80 mm with precise alignment to 0.1mm resolution.
6. Vertical direction: 180° rotation and lock at any angles.
7. Horizontal direction: 360° rotation and lock at any angles.
8. Dual-lead screws ensure stable, accurate and smooth manipulation.
9. Accuracy and flexibility can be maintained at variable temperatures.
10. Extended base plate (400mm x 255mm) is applicable for a variety of animal sizes.
11. Unique anti-clockwise UP mark engraved in the knob prevents incorrect operation.
12. Vertical lock and fixing knob are separated to ensure accurate function at any angle.
13. To ensure a precise designed lateral rotation operating space, the distance between knob and the U-shaped frame is 28mm.
14. Laser engraved scales enable comfortable reading.
15. Curved nose clamp design secures the head of animals.
16. Ear bar locked plate pressing instead of clamping ensures more stability.
17. Syringe pump, micro camera and drill can be attached to instruments.

## Ordering Information

CATALOG	DESCRIPTION
<b>Stereotaxic host (without accessories)</b>	
<b>68803</b>	<b>Desktop digital stereotaxic instrument, SGL M</b> <b>Remark:</b> Standard configuration, contains 68861N base, 68409 3-axis digital manipulator-left, without adaptor, ear bars, holder and mask.
<b>68804</b>	<b>Desktop digital stereotaxic instrument, Dual M</b> <b>Remark:</b> Standard configuration, contains 68861N base, 68409 3-axis digital manipulator-left and 68410 3-axis digital manipulator-right, without adaptor, ear bars, holder and mask.
<b>Required accessories (optional)*</b>	
<b>68055</b>	Mouse Adaptor
<b>68030</b>	Mouse/Neonatal Rat Adaptor
<b>68057</b>	Mouse Anesthesia Adaptor
<b>68021</b>	Rat Adaptor
<b>68053</b>	Rat Anesthesia Adaptor
<b>68301</b>	Rat 18° Ear Bars
<b>68306</b>	Mouse 60° Ear Bars
<b>68201</b>	Standard Probe Holder-Corner, clamping range: 0.3-1.5mm.
<b>68217</b>	Cannula Holder, clamping diameter: 3.5mm. <b>Remark:</b> The clamping part is made of plastic.
<b>68205</b>	Cannula Holder, clamping diameter: 3.5mm. <b>Remark:</b> The clamping part is made of metal.
<b>68214</b>	Ceramic Ferrule Holder, clamping diameter: 1.25mm.
<b>68215</b>	Ceramic Ferrule Holder, clamping diameter: 2.5mm.
<b>68206</b>	General Probe Holder, clamping range: 3-12mm.
<b>68218</b>	Syringe Holder, the syringe barrel clamping range is 6mm-12mm, and the syringe needle clamping range is 0.3mm-1.5mm.
<b>68605</b>	<b>Microdrill Holder, clamping diameter: 14.5mm.</b> <b>Remark:</b> Suitable for 78001 microdrill.





Portable Stereotaxic Instrument for Mouse

•The portable stereotaxic instrument cancels the traditional U-shaped frame, and the operation space is larger. This type is specially designed for mouse. The height of the nose bar and ear bars can be adjusted from 0-20mm, which is convenient for adjusting the level of the skull. The accuracy of non-digital models is 100 μm, and the accuracy of digital models is 10 μm

Key Benefits

- Specific fixed base ( 255mm x 255mm) for mice, fixed more quickly.
- Replace the U-frame, enlarge the operating space, more economical and reliable.
- Unique UP indicator to prevent incorrect operation..
- Double-lead screw design, more stable and accurate operation.
- The ear bar is made of polyoxymethylene resin, 4 different fixed points with 1mm resolution for scales.

Technical Specifications

1. Base plate size : 255mm x 255mm.
2. Ear bars made of polyoxymethylene resin, unique and light.
3. Height adjustment range for palate clip: 20mm (0mm~+20mm).
4. Height adjustment range for ear bars: 20mm(0~+20mm).
5. Ear bars with laser engraved scales (1mm resolution).
6. Working distance in 3 dimension is 80 mm with precise alignment to 0.1mm resolution.
7. Vertical direction: 180° rotation and lock at any angles.
8. Horizontal direction: 360° rotation and lock at any angles.
9. Dual-lead screws ensure stable, accurate and smooth manipulation.
10. Accuracy and flexibility can be maintained at variable temperatures.
11. Unique anti-clockwise UP mark engraved in the knob prevents incorrect operation.
12. Vertical lock and fixing knob are separated to ensure accurate function at any angle.
13. Replace the U-frame, enlarge the operating space, more economical and reliable
14. Laser engraved scales enable comfortable reading.
15. Ear bar locked plate pressing instead of clamping ensures more stability.
16. Syringe pump, micro camera and drill can be attached to instruments.

Ordering Information

CATALOG	DESCRIPTION
Stereotaxic host (without accessories)	
68805	<b>Portable Mouse Stereotaxic Instrument, SGL M</b> <b>Remark:</b> Standard configuration, non-digital model (accuracy is 100μm), including 68863S base, 68401 3-axis manipulator-left, without nose bar, ear bars, holder and mask.
68806	<b>Portable Mouse Stereotaxic Instrument, Dual M</b> <b>Remark:</b> Standard configuration, non-digital model (accuracy is 100μm), including 68863D base, 68401 3-axis manipulator-left, 68402 3-axis manipulator-right, without nose bar, ear bars, holder and mask.
68807	<b>Portable Mouse Stereotaxic Instrument, SGL M, Digital</b> <b>Remark:</b> Standard configuration, digital model (accuracy is 10μm), including 68863S base, 68409 3-axis digital manipulator-left, without nose bar, ear bars, holder and mask.
68808	<b>Portable Mouse Stereotaxic Instrument, Dual M, Digital</b> <b>Remark:</b> Standard configuration, digital model (accuracy is 10μm), including 68863D base, 68409 3-axis digital manipulator-left, 68410 3-axis digital manipulator-right, without nose bar, ear bars, holder and mask.
Required accessories (optional)*	
68033	Nose Bar for 68030 Mouse Adaptor <b>Remark:</b> Optional, the cross-sectional size of the nose bar is 5* 5mm.
68313	45°Ear Bars for 68030 Mouse Adaptor <b>Remark:</b> Optional, including two tips of 45° and rubber, the cross-sectional size of the ear bars is 5*5mm.
68034	18°Ear Bars for 68030 Mouse Adaptor <b>Remark:</b> Optional, including two tips of 18° and serrated, the cross-sectional size of the ear bars is 5*5mm.
68201	Standard Probe Holder-Corner, clamping range: 0.3-1.5mm.
68217	Cannula Holder, clamping diameter: 3.5mm. <b>Remark:</b> The clamping part is made of plastic.
68205	Cannula Holder, clamping diameter: 3.5mm. <b>Remark:</b> The clamping part is made of metal.
68214	Ceramic Ferrule Holder, clamping diameter: 1.25mm.
68215	Ceramic Ferrule Holder, clamping diameter: 2.5mm.
68206	General Probe Holder, clamping range: 3-12mm.
68218	Syringe Holder, the syringe barrel clamping range is 6mm-12mm, the syringe needle clamping range is 0.3mm-1.5mm.
68605	Microdrill Holder, clamping diameter: 14.5mm. <b>Remark:</b> Suitable for 78001 microdrill.





### Portable Rat and Mouse Stereotaxic Instrument

•The portable stereotaxic instrument cancels the traditional U-shaped frame, and the operation space is larger. The adaptor and ear bars are removable for rodents of different weights. The height of the adaptor is adjustable from 0-55mm, and the height of the ear bars is adjustable from 0-45mm, which is convenient for adjusting the level of the skull. The accuracy of non-digital models is 100 µm, and the accuracy of digital display models is 10 µm.

- Replace the U-frame, enlarge the operating space, more economical and reliable.
- Adaptor can be substituted for rat and mouse
- Unique UP indicator to prevent incorrect operation.
- Double-lead screw design, more stable and accurate operation.
- Relieve eyestrain by light interrupted.
- Curved nose clamp secure the animal firmly.

### Technical Parameters

1. Base plate size: 400mm x 255mm.
2. Distance between ear bar and base plate: 35.5mm.
3. Ear bar slots with vernier of 0.1mm resolution.
4. Scale range of Ear bars: 35mm with 1mm resolution.
5. Dorsal/Ventral adjustment range for the adaptor: 30mm (+10mm~-20mm) with 0.1mm resolution.
6. Working distance in 3 dimension is 80 mm with precise alignment to 0.1mm resolution.
7. Vertical direction: 180° rotation and lock at any angles.
8. Horizontal direction: 360° rotation and lock at any angles.
9. Dual-lead screws ensure stable, accurate and smooth manipulation.
10. Accuracy and flexibility can be maintained at variable temperatures.
11. Unique anti-clockwise UP mark engraved in the knob prevents incorrect operation.
12. Vertical lock and fixing knob are separated to ensure accurate function at any angle.
13. Replace the U-frame, enlarge the operating space, more economical and reliable
14. Laser engraved scales enable comfortable reading.
15. Ear bar locked plate pressing instead of clamping ensures more stability.
16. Syringe pump, micro camera and drill can be attached to instruments.

### Ordering Information

Model	Product Description
<b>Stereotaxic host (without accessories)</b>	
<b>68809</b>	<b>Portable Rat and Mouse Stereotaxic Instrument, SGL M</b> <b>Remark:</b> Standard configuration, non-digital model (accuracy is 100µm), including 68867S base, 68401 3-axis manipulator-left, without adaptor, ear bars, holder and mask.
<b>68810</b>	<b>Portable Rat and Mouse Stereotaxic Instrument, Dual M</b> <b>Remark:</b> Standard configuration, non-digital model (accuracy is 100µm), including 68867D base, 68401 3-axis manipulator-left, 68402 3-axis manipulator-right, without adaptor, ear bars, holder and mask.
<b>68811</b>	<b>Portable Rat and Mouse Stereotaxic Instrument, SGL M, Digital</b> <b>Remark:</b> Standard configuration, digital model (accuracy is 10µm), including 68867S base, 68409 3-axis digital manipulator-left, without adaptor, ear bars, holder and mask.
<b>68812</b>	<b>Portable Rat and Mouse Stereotaxic Instrument, Dual M, Digital</b> <b>Remark:</b> Standard configuration, digital model (accuracy is 10µm), including 68867D base, 68409 3-axis digital manipulator-left, 68410 3-axis digital manipulatorright, without adaptor, ear bars, holder and mask.
<b>Required accessories (optional)*</b>	
<b>68087</b>	Mouse Adaptor <b>Remark:</b> Only used for portable rat and mouse stereotaxic instrument
<b>68088</b>	Rat Adaptor <b>Remark:</b> Only used for portable rat and mouse stereotaxic instrument
<b>68301</b>	Rat 18° Ear Bars
68306	Mouse 60° Ear Bars
68201	Standard Probe Holder-Corner, clamping range: 0.3-1.5mm.
68217	Cannula Holder, clamping diameter: 3.5mm. <b>Remark:</b> The clamping part is made of plastic.
68205	Cannula Holder, clamping diameter: 3.5mm. <b>Remark:</b> The clamping part is made of metal.
68214	Ceramic Ferrule Holder, clamping diameter: 1.25mm.
68215	Ceramic Ferrule Holder, clamping diameter: 2.5mm.
68206	General Probe Holder, clamping range: 3-12mm.
68218	Syringe Holder, the syringe barrel clamping range is 6mm-12mm, and the syringe needle clamping range is 0.3mm-1.5mm.
68605	Microdrill Holder, clamping diameter: 14.5mm. <b>Remark:</b> Suitable for 78001 microdrill.



Large Animal Stereotaxic Instruments

Is suitable for cats, dogs, monkeys, pigs, etc. It contains a two-dimensional manipulator (X, Z axis). The accuracy of the non-digital model is 100 μm, and the accuracy of the digital model is 10 μm. Two kinds of adaptors are optional, the 68081 monkey adaptor is generally suitable for large animals of 10-30kg, and the 68041 is generally suitable for large animals below 10kg.

Technical Parameters

1. Adaptors are available for dogs, monkeys, pigs, and other large animals.
2. Y-axis slide design, longer moving range: ± 100mm, 1mm resolution. Optional AP Micro-driver, the resolution of Y-axis promoted to 50μm.
3. Working distance in X-axis and Z-axis dimension is 80 mm with precise alignment to 0.1mm resolution.
4. Holds up to six manipulator arms for more independent operations.
5. Unique jaw plate design better stabilizes the heads of large animals of varying weights
6. Vertical direction: 180° rotation and lock at any angles.
7. Horizontal direction: 360° rotation and lock at any angles.
8. Dual-lead screws ensure stable, accurate and smooth manipulation.
9. Accuracy and flexibility can be maintained at variable temperatures.
10. Extended base plate (400mm x 255mm) is applicable for a variety of animal sizes.
11. Unique anti-clockwise UP mark engraved in the knob prevents incorrect operation.
12. Vertical lock and fixing knob are separated to ensure accurate function at any angle.
13. Laser engraved scales enable comfortable reading.
14. Ear bar locked plate pressing instead of clamping ensures more stability.
15. Syringe pump, micro camera and drill can be attached to instruments.

Ordering Information

CATALOG	DESCRIPTION
Stereotaxic host (without accessories)	
68813	Stereotaxic for Large Animals, SGL M. Remark: Standard configuration, non-digital display model (accuracy 100μm), including 68868N base, 68941 2-axis manipulator-left, without adaptor, ear bars and holder.
68814	<b>Stereotaxic for Large Animals, Dual M.</b> Remark: Standard configuration, non-digital display model (accuracy 100μm), including 68868N base, 689412-axis manipulator-left, 68942 2-axis manipulator-right, without adaptor, ear bars and holder.
68815	<b>Stereotaxic for Large Animals, SGL M, Digital</b> Remark: Standard configuration, digital display model (accuracy 10μm), including 68868N base, 68944 2-axis digital manipulator-left, without adaptor, ear bars and holder.
68816	<b>Stereotaxic for Large Animals, Dual M, Digital</b> Remark: Standard configuration, digital display model (accuracy 10μm), including 68868N base, 68944 2-axis digital manipulator-left, 68945 2-axis digital manipulator-right, without adaptor, ear bars and holder.
Required accessories (optional)*	
68041	<b>Cat/Monkey Adaptor</b> Remark: It is suitable for large animal stereotaxic, and is generally used for cats, dogs, monkeys, etc. under 10kg. Before purchasing, please confirm the animal's head width, distance from nose to eyes, mouth width and other information with RWD.
68081	<b>Dog/Monkey/Pig Adaptor</b> Remark: It is suitable for large animal stereotaxic, and is generally used for 10-30 kg cats, dogs, monkeys, etc. Before purchasing, please confirm the animal's head width, distance from nose to eyes, mouth width and other information with RWD.
68303	Cat/Monkey 18° Ear Bars
68304	Cat/Monkey 45° Ear Bars
68201	Standard Probe Holder-Corner, clamping range: 0.3-1.5mm.
68217	Cannula Holder, clamping diameter: 3.5mm. Remark: The clamping part is made of plastic.
68205	Cannula Holder, clamping diameter: 3.5mm. Remark: The clamping part is made of metal.
68214	Ceramic Ferrule Holder, clamping diameter: 1.25mm.
68215	Ceramic Ferrule Holder, clamping diameter: 2.5mm.
68206	General Probe Holder, clamping range: 3-12mm.
68218	Syringe Holder, the syringe barrel clamping range is 6mm-12mm, and the syringe needle clamping range is 0.3mm-1.5mm.
68605	Microdrill Holder, clamping diameter: 14.5mm. Remark: Suitable for 78001 microdrill.





### MRI Stereotaxic Instruments

•Have all the functions of Standard Stereotaxic Instruments. The dog/monkey adaptor is configured to into the front end of the animal's hearing organ through a ear bars for accurate and firm fixation of the animal. The animal is held in place by the adjustable eye bar and upper jaw plate to prevent head rotation. All parts of this device are made of specific non-metallic materials, which are specially used in animal experiments under nuclear magnetic environment. It has a good fixation effect and meets the unique needs of accurate positioning of animal heads in brain science research experiments.

### Technical Parameters

1. Completely plastic materials, MRI compatible, also suitable for nuclear environment
2. Adaptors are available for dogs, monkeys, pigs, and other large animals.
3. Y-axis slide design, longer moving range:  $\pm 100\text{mm}$ , 1mm resolution. Optional AP Micro-driver, the resolution of Y-axis promoted to  $50\mu\text{m}$ .
4. Frame bar centerline distance: 178.5mm
5. Holds up to six manipulator arms for more independent operations.
6. Unique jaw plate design better stabilizes the heads of large animals of varying weights
7. Extended base plate (420mm x 200mm) is applicable for a variety of animal sizes.
8. Laser engraved scales enable comfortable reading.
9. Ear bar locked plate pressing instead of clamping ensures more stability.

### Ordering Information

Catalog	Description
<b>68915</b>	MRI Compatible Stereotaxic for Dog/Monkey/68081/Base Plate(Customized)
<b>68941</b>	2-axis Manip for Dog/Monkey Stereotaxic, Left Hand
<b>68942</b>	2-axis Manip for Dog/Monkey Stereotaxic, Right Hand
<b>68024</b>	2-axis Digital Readout for Upgrade-68000
<b>68944</b>	2-axis Digital Manip for Dog/Monkey Stereotaxic, Left Hand
<b>68945</b>	2-axis Digital Manip for Dog/Monkey Stereotaxic, Right Hand
<b>68104</b>	AP-Microdriver (50um)



RWD



## Histology & Patology Research Equipment

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RWD is one of the world-class histology equipment manufacturers that provide up-to-date, modernized and customized models to meet the needs of our clients. To maintain a well and efficiently-managed histology laboratory, we provide global distributor network service, warranty, training, demonstration and installation. In case there is a need for optimization, we will provide assistance with purchasing major new pieces of equipment and integrating them into the laboratory. The new equipment and modification of the laboratory environment could stimulate productivity and improve flexibility so that the quality and workflow are kept to a high standard in the long run.

If you are on the lookout for histology equipment manufacturers, we are here to serve as a reliable source for all your experimental needs with our complete lineup of the latest histology equipment and supplies for sample collection, storage, sectioning and examining. Our highly specialized histology equipment outperforms the market in terms of quality, efficiency and pricing.

### Choice of histology equipment

#### • How to choose a rotary microtome

When choosing a rotary microtome, slicing accuracy, speed and quality of the slice are the three key factors to consider. There are two types of rotary microtome: The Manual and automated models. You can select the one which accommodates the habits of the operators to achieve efficient slicing.

- (1) The triple benefit of slicing accuracy, speed, and quality.
- (2) To meet the various habits of most operators and ensure slicing efficiency.
- (3) Manual or automatic slicing can be selected to meet the needs of different customers and scenarios.
- (4) While creating benefits for users, the price is more affordable.

#### • How to choose a cryostat

It is necessary to choose a cryostat with a double cooling system so as to shorten the time for sample freezing. Also, a double cooling system ensures precise temperature control so that slide quality can be guaranteed. If you want to further optimize the slicing performance, choose a fully automated cryostat that provides intelligent features including four automatic slicing modes, a precise positioning system, UV disinfection function and a vacuum cleaning system.

#### RWD Cryostat :

- (1) Double refrigeration function design to ensure the temperature regulation of different parts.
- (2) Fast refrigeration, shortening the sample freezing time; Precise temperature control.
- (3) Intelligent operation experience to improve overall slicing efficiency.
- (4) While creating benefits for users, the price is more affordable.





### Minux® FS800 Cryostats Semi-Automatic RWD

FS800 Cryostat, also called freeze microtome, is a semiautomatic type designed to consistently produce high quality frozen sections of maximum quality. Featured superior capability, it is able to cut tissues at low temperatures (as low as -35 °C) quickly. Even at open-window operation model, the Cutting-Edge Cooling Technology achieves less than 2°C of temperature fluctuations in 3 hours.

#### Applications:

- Pathological diagnosis
- Biological research
- Neuroanatomical research
- Pharmaceutical research
- Clinical cryo-sectioning needs

#### Available Types:

- UV: for large specimen numbers and varying specimen types with UVC for increased user safety.
- Specimen: Standard type with individually controlled temperature settings on both the cabinet and the object specimen holder.

#### Features&Benefits

##### 1. Stable

- 1.1 Stable temperature: the advanced temperature control system, compressor and cooling system perfectly guarantee temperature stability.
- 1.2 Stable slice quality : high-precision cross rail and screw, five-phase high-resolution sampling motor and horizontal sampling slider made of aviation aluminum, form a precise sampling system to ensure stable slice quality.

##### 2. Safe

- 2.1 UVC disinfection: adopting advanced low-temperature UVC disinfection technology to effectively kill bacteria and viruses, disinfecting the inner surface and the air of the cabinet to reduce the risk of contamination by infectious materials.
- 2.2 Waste liquid management system: waste liquid volume will be displayed on the touch screen. Full bottle alarm to prevent waste liquid from flowing out and contaminating the ground

##### 3. Efficient

- 3.1 Efficient operation: boasting a colorful touch-sensitive screen. Integrating coarse sample feeding, trimming and section switching, and slice parameter adjustment with a joystick to constitute an efficient operating system.
- 3.2 Quick positioning: precise positioning system with ±8°visual pointer make it easy to adjust the specimen clamp to the target angle, reducing trimming and sample waste.
- 3.3 Automatic sleep and wake-up: save energy, simplify manual operation and reduce waiting

### Technical Parameters

Model	FS800 Semi-Automated
Section thickness setting range: 0.50 – 100 µm	✓
Trimming section thickness setting range: 1 – 800 µm	✓
Electric sectioning speed: 0-1800µm adjustable	✓
Specimen retraction: 0-250µm adjustable	✓
Specimen feed: 28mm	✓
Vertical stroke: 70mm	✓
Specimen orientation with zero position horizontal/vertical rotation: X/Y axis 8°	✓
Number of refrigerated sites: 15	✓
Number of fast cooling sites: 2	✓
Freezer refrigeration temperature: 0°C~ -35°C	✓
Sample head minimum cooling temperature: -50°C	✓

### Ordering Information

Catalog #	Type	UV Disinfection	Specimen Cooling System	Note
FS800	Specimen	✓	✓	Most popular cryostat with individually controlled temperature settings on both the cryochamber and the specimen holder.





### Minux® S700 Semi-Automatic Rotary Microtome, RWD

Built upon market-leading microtome machine design, S700 Rotary Microtome enables you to cut sections precisely, safely and super easy to operate. It displays extraordinary ergonomic characteristics for comfortable operation. It is a semi-automatic model, more in line with your slicing habits.

When working with delicate specimens (example being brain samples) the rotary microtome system will provide reproducible, thin, serial sections of maximum quality time

and again. Unique side specimen knob and visual pointer design make specimen advance and retraction more precise. Handwheel double lock system, knife ejector, and guard enhance safety.

The 2-in-1 blade holder satisfies the use of high and low-profile blades.

**Application field:** Histopathology/Anatomical Pathology

### Features&Benefits:

#### -Accurate

•Precise sampling: Our rotary microtome machine is well-equipped with **Cross roller bearings** and **Spindle**, combined with a **five-phase high-resolution Stepper motor** and a **Link block** made of aviation aluminum, form a high-precision sampling system to ensure slice quality.

•Accurate positioning: With patented pointer identification technology, our rotary microtome machine enables visual adjustment of the sample angle for pinpoint accuracy in positioning; the knife holder has a small lateral displacement which further enhances accuracy. The base has a scale, which is convenient for the knife holder to locate and improve the quality of slices.

#### -Safety

• Operator safety: The handwheel dual locking system comes with a lock prompt sound, and is equipped with a knife ejector and a knife guard, so that the user can safely replace the sample and blade.

#### -Intelligent

•Information tracking: Our rotary microtome machine is built with a 5-inch touch screen and history recording system that make it easy to trace back the past information and quickly solve the problems.

#### -Convenience

•Convenient operation: German military-grade side injection knob of the rotary microtome machine conforms to ergonomic design, and the operation is more comfortable and coordinated.

•Convenient maintenance: special material waste tank, non-wax, easy to clean

### •Technical Parameters

※Semi-automatic operation, motorized injection, manual sectioning.

**Section thickness range** : 0.5 – 100 μm

•0.5 – 5.0 μm in 0.5μm increments

•5- 20μm in 1μm increments

•20 – 30 μm in 2μm increments

•30- 60 μm in 5μm increments

•60- 100μm in 10μm increments

**Trimming section thickness range** : 1 – 800 μm

•1- 10μm in 1μm increments

•10- 20μm in 2μm increments

•20- 50μm in 5μm increments

•50- 100μm in 10μm increments

•100- 800μm in 50μm increments

**Specimen retraction** : 0-250μm ajustable

**Specimen Feed** : 28mm

**Vertical Stroke** : 70mm

**Maximum sample size** : standard specimen clamp, 55×50×30mm

**Specimen orientation** : X axis/Y axis8°, Z axis 360°

**Horizontal feed speed** : 1800μm/s

※Sample positioning function,patented visual pointer identification,keep samples at the same angle and achieve accurate sample positioning.

※The 5-inch touch screen is easy to operate. Stylish and simple operation interface,easy to learn and understand.

※The side sampling knob is ergonomically designed to make the operation more comfortable. The half-knife repair function simplifies the operation process, saving time and effort.

Handwheel dual lock system can lock the handwheel at any position. The knife guarding and retracting device, together with the emergency stop button strengthen the protection of the rotary microtome machine operator.

The sample position memory function and the one-click reset button improve the sectioning efficiency.

Audible and visual alarm when the remaining section of the horizontal sampling stroke reaches 1mm.

The historical record system can query the equipment usage and facilitate information tracking.

Ordering Information	S700 Semi-Auto
Section thickness setting range: 0.50 – 100 μm	✓
Trimming section thickness setting range: 1 – 800 μm	✓
Electric sectioning speed: 0-1800μm	✓
Specimen retraction: 0-250μm	✓
Specimen feed: 28mm	✓
Vertical stroke: 70mm	✓
Specimen orientation with zero position horizontal/vertical rotation: X/Y axis 8°	✓
Maximum specimen size : 55*50*30mm	✓
W x D x H: 470mm×553mm×305mm	✓
Machine weight	28kg



### Minux® S700A Rotary Microtome, RWD

S700A is a fully automated microtome with automatic, semi-automatic, and manual options available to meet the different needs of microtomists. Featured four mechanized cutting modes to produce high-quality sections across an extensive range of specimen types. It displays extraordinary ergonomic characteristics for comfortable operation while maintaining reproducible precision. The unique side specimen knob and visual pointer design make specimen advance and retraction more precise. Handwheel double lock system and knife ejector and guard enhance safety.

Special memory system to remember the optimal specimen position for fast and effortless sectioning.

The 2-in-1 blade holder satisfies the use of high and low-profile blades.

#### Features&Benefits:

- **Cross roller bearings** and **Spindle** imported from Germany, combined with a **five-phase high-resolution Stepper motor** and a **Link block** made of aviation aluminum, form a high-precision sampling system to ensure slice quality. Original imported **Drive motor** and encoder ensure stable and smooth automatic slicing
- **Accurate positioning:** Patented technology pointer identification, the sample angle can be adjusted visually, and the positioning is more accurate; the knife holder has a small lateral displacement and high accuracy. The base has a scale, which is convenient for the knife holder to locate and improve the quality of slices.

#### Safety

- **Operator safety:** The handwheel dual locking system comes with a lock prompt sound, and is equipped with a knife ejector and a knife guard, so that the user can safely replace the sample and blade. After the automatic slicing is completed, the electronic brake keeps the handwheel in a stable state to ensure safe operation

#### Intelligent

- **Intelligent slicing:** Four automatic slicing modes to meet the needs of different slicing scenes. Cutting window function to ensure the quality of slices while improving the efficiency of automatic slices
- **Information tracking:** 5-inch touch screen, history recording system, easy to trace back information and quickly solve problems

#### Convenient

- **Convenient operation:** The imported military-grade side sample injection knob conforms to the ergonomic design, and the operation is more comfortable and coordinated.
- **Convenient maintenance:** special material waste tank, non-wax, easy to clean

### Technical Parameters

※Automated, motorized injection for automatic or manual sectioning.

Section thickness range : 0.5 – 100 μm

•0.5 – 5.0 μm in 0.5μm increments

•5- 20μm in 1μm increments

•20 – 30 μm in 2μm increments

•30- 60 μm in 5μm increments

•60- 100μm in 10μm increments

Trimming section thickness range : 1 – 800 μm

•1- 10μm in 1μm increments

•10- 20μm in 2μm increments

•20- 50μm in 5μm increments

•50- 100μm in 10μm increments

•100- 800μm in 50μm increments

Specimen retraction : 0-250μm adjustable

•Specimen feed : 28mm

•Vertical stroke : 70mm

•Maximum sample size : standard specimen clamp, 55x50x30mm

•Specimen orientation : X axis/Y axis8°, Z axis 360°

Horizontal feed speed : 0-1800μm/s

※Section speed : 0.5~450mm/s adjustable

※Sample positioning function,patented visual pointer identification,keep samples at the same angle and achieve accurate sample positioning.

※The 5-inch touch screen is easy to operate. Stylish and simple operation interface,easy to learn and understand.

※The side sampling knob is ergonomically designed to make operation more comfortable. The half-knife repair function simplifies the operation process, save time and effort.

Handwheel dual lock system, lock the handwheel at any position. Knife guarding and retracting device, emergency stop button, multiply enhance the protection of the operator.

Sample position memory function, one-click reset, improve sectioning efficiency.



Ordering Information

	S700A Fully-Auto
Section thickness setting range: 0.50 – 100 µm	√
Trimming section thickness setting range: 1 – 800 µm	√
Electric sectioning speed: 0-1800µm	√
Specimen retraction: 0-250µm	√
Specimen feed: 28mm	√
Vertical stroke: 70mm	√
Specimen orientation with zero position horizontal/vertical rotation: X/Y axis 8°	√
Maximum specimen size : 55*50*30mm	√
W x D x H: 470mm×553mm×305mm	√
Machine weight	36.4kg
Fully motorized and semi- motorized mode switch	√
Emergency stop button	√
Cut window function	√
Slice speed selection	√
Multiple slice modes	√
Pedals	√



Disposable Microtome Blades PB-2, RWD ®

Our sharp and durable PB-2 blades are manufactured to the highest standards to meet the demands of the modern histology laboratory, which can be used for rotary microtomes and cryostats.

Benefits

1.Sharp

•Precision polished, designed for paraffin sections and frozen sections. Easily cut out thin cicada-like paraffin pieces, with good connectivity.

2.Durable

•Increase blade strength and endurance, reduce blade friction and extend blade life. Easily respond to trimming and sectioning with the same blade position.

3.Convenient

•Blades packed in a push-out distribution box for easy access. Provides storage space for collecting used blades for easy recycling after use

Technical Specifications

Item	Parameter
Size	80*8*0.25mm
Angle	35°
Packaging	50 pcs





100-Place Premium Plus Slide Box

Modern design for maximum functionality

Optimal Organization

- Organize by “project” and “date” molded in on lid
- Inventory card index corresponds to slide numbers and is removable for trouble-free writing on flat surface- Vibrant translucent colors are easy to identify and enable coding options

Functional Design

- Flexible storage, store vertically or horizontally to efficiently use space
- Molded feet allow secure horizontal stacking of multiple units
- Unique side storage can accommodate a pen, desiccant or other small items needed for working
- Hinged lid smoothly opens 180° sitting flat on surfaces and prevents misplacement

Safe & Secure

- EVA foam lines the bottom of the box helping to hold slides securely in place and protect against damage
- Stylish wave surface texture is easy to hold for safe sample transport

Ordering Information:

Catalog	Color
120576	Blue
120577	Orange
120578	Green
120579	Red
120592	Purple
120593	Assorted (Blue, Green, Orange, Purple, Red)
120618	Replacement Inventory Pack of 10



### Premium Microscope Slide Boxes

Premium Microscope Slide Boxes

#### Organize & Identify

- Lining and slots are numbered to correspond to slide inventory sheet
- Organize by "Project" and "Date" with pre-molded labeling are
- Available in multiple colors for project coding

#### Durable & Safe

- ABS plastic boxes available with either cork or foam lining
- Designed to securely store slides in grooved slots
- Molded feet secure stacking for easy transport and storage



HS15979A

**100-Place Slide Box |**  
Dimensions: 20.8 x 17.5 x 3.4 cm

Closes securely with a resistant nickel plated clasp and pin hinges

**100-Place Tall Slide Box |**  
Dimensions: 20.8 x 17.5 x 6 cm

Additional height for 3 x 2 in slides  
Stackable with 100-Place Premium Slide Boxes

#### Ordering Information:

Catalog	Color	Lining
HS15994A	Blue	Cork
HS15994B	Green	Cork
HS15994C	Red	Cork
HS15994D	Yellow	Cork
HS15994E	White	Cork
HS15994F	Grey	Cork
HS15994G	Black	Cork
HS15994M	Blue	Foam
HS15994P	Red	Foam
HS15994R	White	Foam
HS15979A	Blue	Cork

### 50-Place Slide Box | Dim, 20.8 x 8.6 x 3.5 cm

Thumb-latch lock mechanism

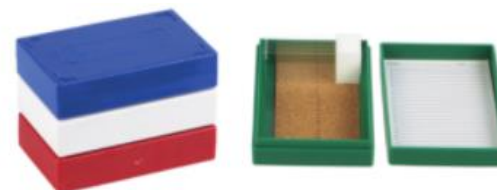


#### Ordering Information:

Catalog	Color	Lining
HS15996A	Blue	Cork
HS15996B	Red	Cork
HS15996C	White	Cork

### 25-Place Slide Box | Dim, 14.1x8.8x3.5 cm

Easily access slides with friction-fit cover



#### Ordering Information:

Catalog	Color	Lining
HS15989A	Blue	Cork
HS15989B	Green	Cork
HS15989C	Red	Cork
HS15989E	White	Cork
HS15989M	Blue	Foam
HS15989P	Red	Foam
HS15989R	White	Foam





**Storage Rack for 15 Microscope Slide Boxes, Dimensions 71.1 x 17.1 x 22.8 cm. Heathrow Scientific HS159890B**

Create a file system for 50-Place and 100-Place slide boxes  
Storage rack makes organization of samples easy

- Clear acrylic construction allows the labels to be seen on the slide boxes
- Place boxes in rows or columns by color to create an easy coding system

**Standard Microscope Slide Boxes**

Constructed of durable polypropylene



Slide boxes hold either 25 or 100 standard slides (76 x 26 mm and 3 x 1 in)




Improved Identification

- Molded slot numbers correspond directly to the slide inventory card
- Organize with "Project" and "Date" pre-molded labeling area




Secure & Stackable

- Hinged lids are held securely closed with a latch lock
- Molded feet secure stacking for easy transport and storage

**25-Place Slide Box**

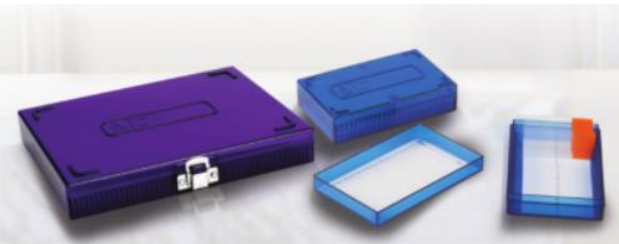
Item No.	Color	Lining	Lock	L x W x H in (cm)
HS15990A	Blue 	None	Latch Lock	5.6 x 3.6 x 1.2
HS15990B	Red 			(14.1 x 9.2 x 3)
HS15990C	White 			
120740	25-Place Replacement Inventory Card, Pack of 10			5.3 x 3.1 (13.4 x 8)

**100-Place Slide Box**

Item No.	Color	Lining	Lock	L x W x H <i>in (cm)</i>
HS15991A	Blue 	None	Latch Lock	8.3 x 6.7 x 1.5
HS15991B	Red 			(21 x 16.9 x 3.7)
HS15991C	White 			
120741	100-Place Replacement Inventory Card, Pack of 10			3.9 x 6.1 (10 x 15.5)

**Low Temperature Microscope Slide Boxes**

Store in ultra-low temperatures with confidence



Holds standard slides (76 x 26 mm and 3 x 1 in)

Durable Construction

- Made of polycarbonate to store in ultra-low temperatures
- Uniform grooved slide slots separate slides preventing slide contact
- Molded feet enable secure stacking for easy transport and storage

Durable Construction

- Low temperature resistant numbered foam lining corresponds with identification sheet
- Organize with "Project" and "Date" pre-molded labeling area



**Low Temperature Microscope Slide Boxes**

Item No.	Color	Capacity	Lock	L x W x H In (cm)
120316	Blue	25-Place	Friction Fit	5.6 x 3.5 x 1.4 (14.1 x 8.8 x 3.5)
HS15988H	Purple	100-Place	Stainless Steel Clasp	8.2 x 6.9 x 1.3 (20.8 x 17.5 x 3.4)

### Slide Mailers

Safe and secure transport of standard microscope slides (76 x 26 mm and 3 x 1 in)



#### Cardboard Slide Mailers

- Heavy cardboard mailers for safe transport
- Cover that opens for viewing and thumb grooves for easy slide removal
- Securely holds slides with or without cover glass
- Flat surface area is ideal for labeling or writing necessary information

#### Ordering Information:

Catalog	Color	Capacity	Dimensions	Presentation
<b>HS9903</b>	Natural	1 place	95x42x5 mm	Pack of 25
<b>HS9904</b>	Natural	2 place	103x79x5 mm	Pack of 36
<b>120557</b>	White	4 place	120x140x6 mm	Pack of 20

#### Plastic Slide Mailers

- Polypropylene protectors ideal for secure shipping and storing of slides
- Large, easy-to-secure snaps, provide safe storage for valuable slides
- Variety of colors brings some fun to the lab and enables color coding



#### Ordering Information:

Catalog	Color	Capacity	Dimensions	Presentation
<b>120556</b>	Natural	1 place	83x41x5 mm	Pack of 50
<b>HS15983B</b>	Natural	2 place	93x68x5 mm	Pack of 25
<b>HS15983A</b>	Assorted	2 place	93x68x5 mm	Pack of 25

(Blue, Orange, Purple, Red, Yellow)

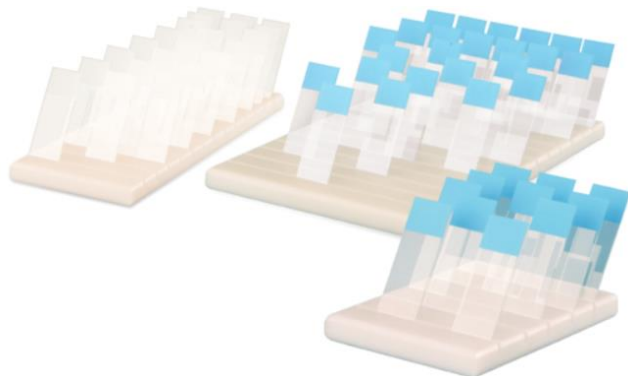


#### Plastic 5-Place Slide Mailers

- Polypropylene containers ideal for secure shipping, storing or staining slides
- Polypropylene containers hold five standard slides (76 x 26 mm and 3 x 1 in)
- Inside wall features slotted channels to keep slides separated and to make removal easier
- Lid closes securely to keep slides safe
- **Side Opening** HS15982 81x19x31 mm
- **End Opening** HS15983G & HS15986 43x24x88 mm

#### Ordering Information:

Catalog	Color	Capacity	Presentation
<b>HS15982</b>	Natural	5 place	Pack of 25
<b>HS15983G</b>	Assorted	5 place	Pack of 25
<b>HS15986</b>	Natural	4 place	Pack of 20

**Slide Holders**

**Hold slides during evaluation, cleaning and drying**

- Made from chemical-resistant polyethylene making the unit resist stains and easy to clean

- Solid, strong construction with rubber feet for benchtop stability
- Angled slide holder slots allow easy access to individual slides and viewing of slide labels

**Ordering Information:**

Catalog	Color	Capacity	Dimensions
<b>HS15981A</b>	Natural	40 place	29.8x10.5x2.4 cm
<b>HS15981B</b>	Natural	78 place	29.9x17.8x2.1 cm
<b>HS15981C</b>	Natural	15 place	15.3x10.2x2.1 cm



**8-Slide Staining Tray Set Black color, dimensions: 30.5x12.7x3 cm. Heathrow Scientific HS15951A**

**Reduce possible cross-contamination and messy work areas**

This rugged staining tray is an economical alternative to metal versions

- Made from a polypropylene and polyethylene blend for stability
- Stain, rinse, and dry slides on a single working tray
- A clean and fresh working surface area every time
- Up to eight slides fit comfortably onto the base and the deep well holds up to 38 mL
- Compact size and recessed handles for easy transport from work area to sink
- Pack includes 4 trays and 1 lid 8-Place Slide Staining Tray



**18-Place Slide Staining Tray Set Black, Dimensions: 41 x 22.5 x 4 cm. Heathrow Scientific 120879**

Ideal for Clinical and Research laboratory staining Tray holds standard microscope slides (76 x 26 mm) securely in place for staining, rinsing and drying applications

Robust design

- Durably constructed from solvent resistant polypropylene blend
- Non-skid Silicone feet keep tray in place

Convenient to use

- Two ways to empty stain liquid
  - Pour spouts on each corner
  - Drain hole with plug
- Equipped with handle cut-outs for easy handling

Versatile for multiple testing formats

- Black lid included for light sensitive applications
- Humidity retention wells for specialized staining needs

# BIOMOLAB de México Catálogo



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