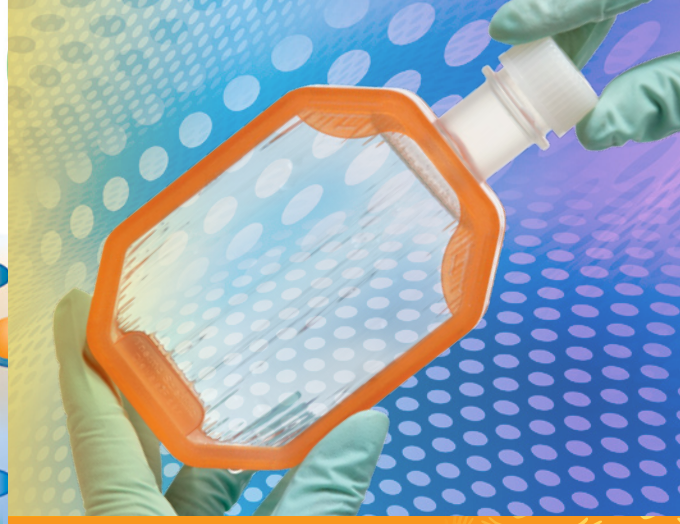


Thermo Scientific
High-performance Dialysis Products

Innovative devices
for secure sample dialysis

A broad range of reliable and easy-to-use products
for efficient dialysis of your precious samples
between 10µL and 250mL

Thermo
SCIENTIFIC

overview

High-performance Dialysis

Dialysis is a classic solution-based separation technique that facilitates the removal of small, unwanted compounds from macromolecules by selective diffusion. In a typical dialysis application, a sample and a buffer solution are placed on opposite sides of a semi-permeable membrane. Sample molecules that are larger than the membrane pores are retained on the sample side of the membrane, but small molecules diffuse freely through the membrane and approach an equilibrium concentration with the entire buffer volume (Figure 1). Through this process, the concentration of small contaminants in the sample can be decreased to acceptable or negligible levels if the external buffer volume is large (typically 30-500 times the sample volume). Alternatively, desired components in the external buffer solution can be slowly brought into the sample. Dialysis is used for a wide variety of applications including simple salt removal and buffer exchange, removal of labeling reagents, drug binding studies, cell growth and feeding, serum and blood treatment, and virus purification.

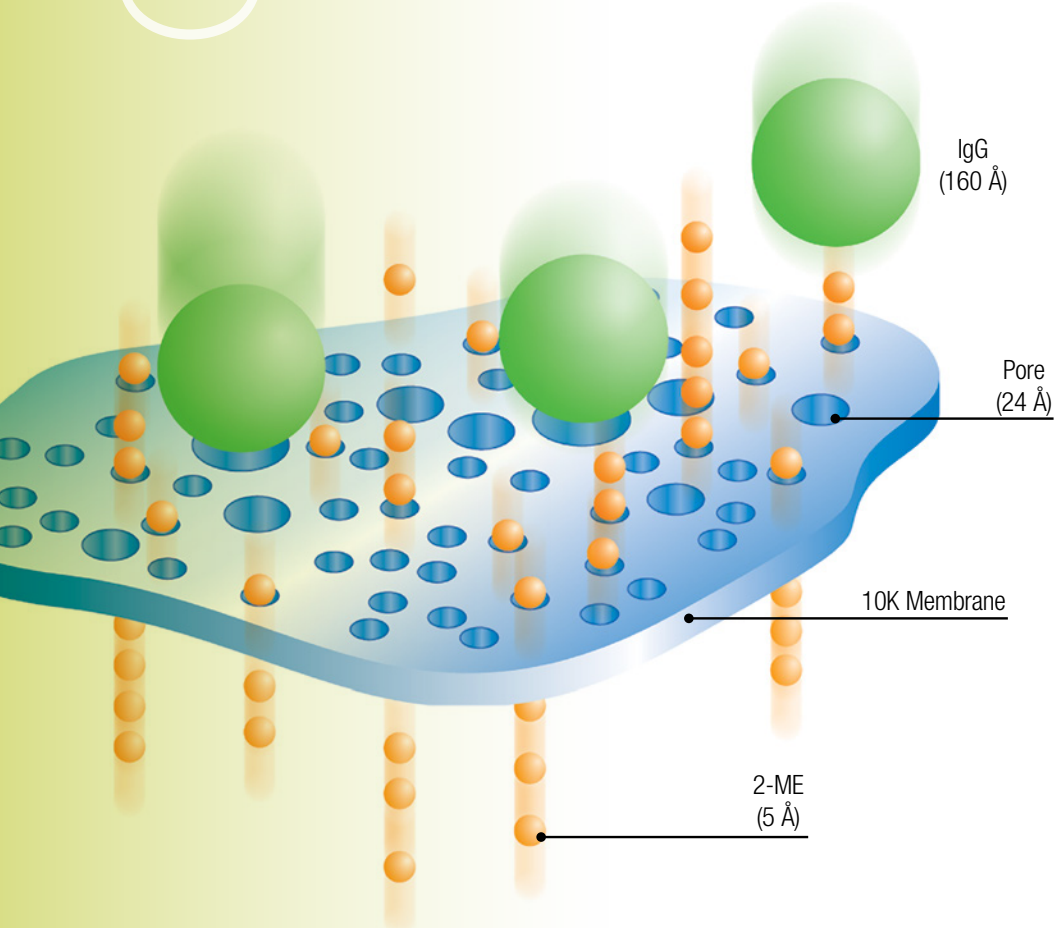


Figure 1. How dialysis membranes work. A dialysis membrane is a semi-permeable film (usually a sheet of regenerated cellulose) containing various sized pores. Molecules larger than the pores cannot pass through the membrane, but small molecules can do so freely. In this manner, dialysis may be used to perform purification or buffer exchange for samples containing macromolecules.

Optimized Products for Easier, Efficient Dialysis

Using dialysis to separate complex mixtures of biomacromolecules was established in the 1950s. Many of the dialysis theories established at that time are the cornerstones for contemporary dialysis products. However, significant improvements have been made to the dialysis tools of yesterday, including faster preparation time, ease of use and reliability. Thermo Scientific™ Dialysis Products are essentially ready to use and are designed to eliminate potential sample leakage and maximize ease of use for specific applications. Our broad product portfolio covers a variety of formats and membrane molecular weight cutoffs (MWCOs) to accommodate a wide range of sample volumes and workflows.

Our complete portfolio includes:

- Cup Devices for ~10µL to 2mL samples:
  Thermo Scientific™ Slide-A-Lyzer™ MINI Dialysis Devices
- Micro Dialysis Plates for 10µL to 100µL samples:
  Thermo Scientific™ Pierce™ 96-well Microdialysis Plates
- Cassettes for ~0.5mL to 70mL samples:
  Thermo Scientific™ Slide-A-Lyzer™ Dialysis Cassettes
- Flasks for 150mL to 250mL samples:
  Thermo Scientific™ Slide-A-Lyzer™ Dialysis Flasks
- Tubing for ~10mL to 100mL samples:
  Thermo Scientific™ SnakeSkin™ Dialysis Tubing

Membrane Molecular Weight Cutoff and Factors that Influence Dialysis

Dialysis is used for separating molecules with significantly different molecular weights (typically a 10- to > 50-fold size difference). The diffusion properties of a membrane are determined by the average or maximum size of its pores, the number of pores and the thickness of the membrane. Membrane selection is based on the molecular weight cutoff (MWCO), which is defined as the average molecular weight of a molecule that can no longer diffuse across the membrane, such that it is retained at > 90%, as it no longer fits into the pores. Understanding the significance of a membrane's MWCO and how it behaves enables selection of the best membrane for a particular dialysis application. Molecular weight cutoff is not a "defined" value, as diffusion of molecules near but below the MWCO will also be significantly slowed. Molecules with a molecular weight that is less than 1/10 of the MWCO rating of the membrane will diffuse most rapidly and reliably across the membrane (see data, pg. 4-5). A membrane with the proper MWCO will prevent loss of proteins of interest and ensure adequate removal of contaminants.

Although the membrane and its properties are the primary factors that affect dialysis rate, a variety of other factors can also influence dialysis. These include temperature; the geometry, concentration, interactions and hydrophobicity of the molecules; as well as the volume, agitation and frequency exchange of the external buffer. The rate of dialysis is also directly proportional to the surface area of the membrane in relationship to the volume of the sample and the average distance of the sample from the membrane. The more that a sample can be spread over a membrane surface, the faster dialysis will proceed because all molecules in the sample will be closer to the membrane, and a higher proportion of them will be in direct contact with the membrane at any instant. High-performance dialysis products, such as Slide-A-Lyzer Dialysis Cassettes (Figure 2), Flasks and MINI Dialysis Units, are designed to maximize surface area-to-volume ratios (within practical limits) for different sample volumes.

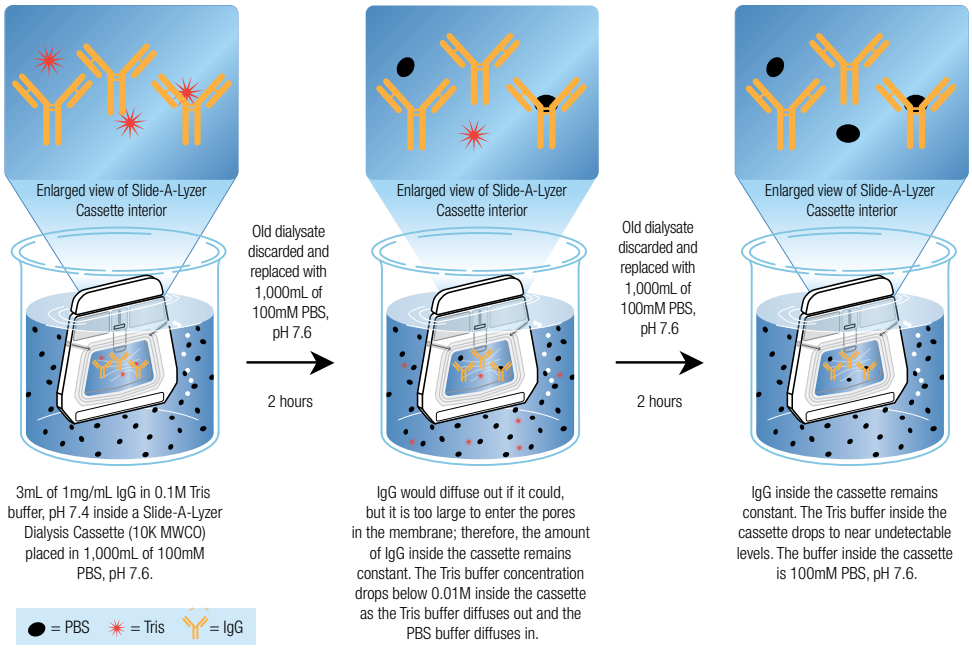
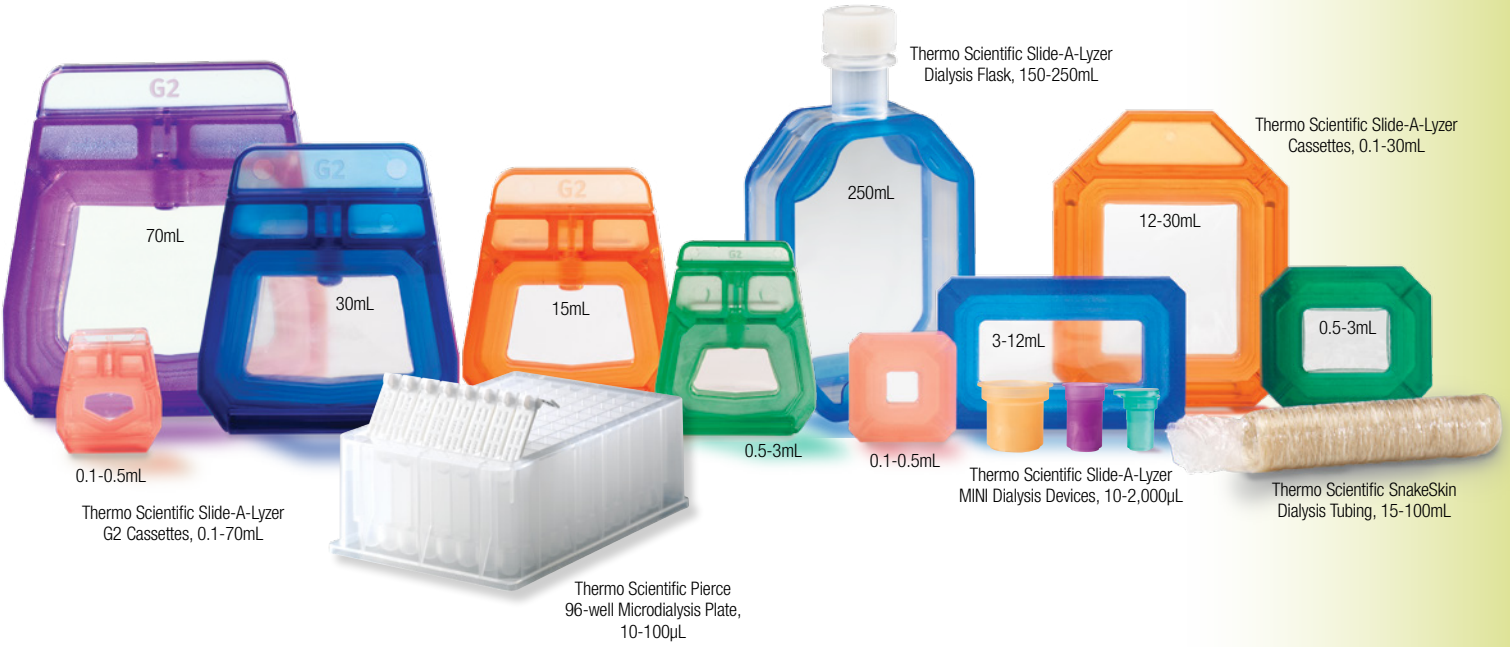


Figure 2. How the Thermo Scientific Slide-A-Lyzer Cassette works.

Dialysis Products Optimized for Sample Volume and Throughput

Thermo Scientific Dialysis Products have evolved over the last decade to meet a variety of customer needs. Our broad portfolio of high-performance tools for dialysis, buffer exchange and sample clean up provides easy handling, enhanced sample protection and exceptional recovery for small to larger volumes. Available in a variety of formats, it's easy to find the best dialysis product for your application.



Thermo Scientific High-Performance Dialysis Product Selection Guide MWCO Membrane	 10-100µL Pierce 96-well Microdialysis Plate Page 10	 10-2,000µL Slide-A-Lyzer MINI Dialysis Device Page 8	 0.1-70mL Slide-A-Lyzer G2 Dialysis Cassette Page 16	 0.1-30mL Slide-A-Lyzer Dialysis Cassette Page 14	 150-250mL Slide-A-Lyzer Dialysis Flasks Page 18	 15-100mL SnakeSkin Dialysis Tubing Page 20
2K	N/A	X	X	X	X	N/A
3.5K	X	X	X	X	X	X
7K	N/A	X	X	X	N/A	X
10K	X	X	X	X	X	X
20K	N/A	X	X	X	X	N/A

perfomance data

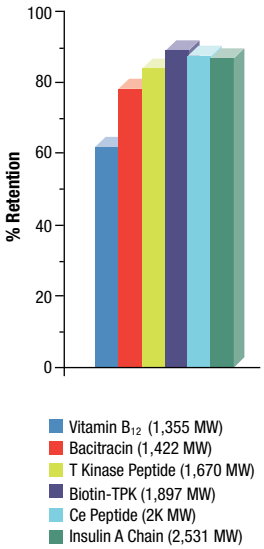
Membrane Performance Data

Product Specifications

Specifications	Slide-A-Lyzer Membrane MWCO					SnakeSkin Tubing
	2K	3.5K	7K	10K	20K	3.5K, 7K and 10K
Membrane Composition	all membranes composed of regenerated cellulose					
Required Hydration	2 minutes	30 seconds	30 seconds for low-volume samples	30 seconds	2 minutes	none
Glycerol Content	none	trace	13%	21%	none	varies with MWCO
Sulfur Content	0.169%	0.1-0.15%	0.1-0.15%	0.05%	0.04%	0.1-0.15%
Heavy Metals Content	trace	trace	trace	trace	trace	trace

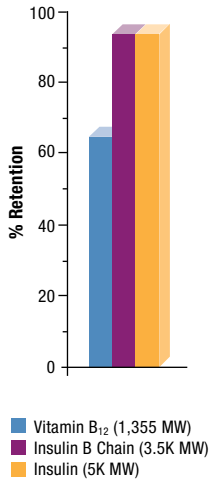
Molecular Weight Cutoff Comparison Data

2K MWCO



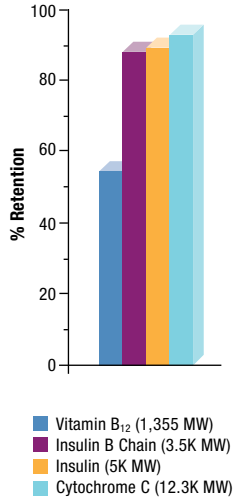
Sample retention by the 2K MWCO Thermo Scientific Slide-A-Lyzer Cassette membrane. Vitamin B_{12}, bacitracin, tyrosine kinase peptide 1, biotin-TPKs substrate, protein kinase Ce (PKCe) peptide substrate and insulin A chain model systems (0.5-1mg/mL) in either saline or 0.2M carbonate bicarbonate buffer, pH 9.4 were dialyzed overnight (17 hours) at 4°C. The amount of retentate was estimated using either the Thermo Scientific™ Pierce™ BCA Protein Assay or absorption at 360nm (for vitamin B_{12}).

3.5K MWCO



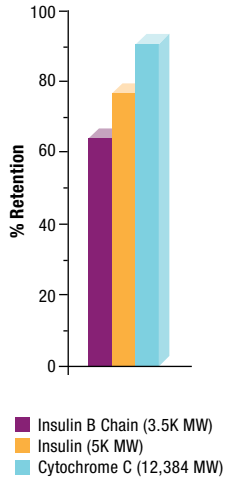
Sample retention by the 3.5K MWCO Thermo Scientific Slide-A-Lyzer Cassette membrane. Vitamin B_{12}, insulin B chain and insulin (1mg/mL) in either saline or 0.2M carbonate bicarbonate buffer, pH 9.4 were dialyzed overnight (17 hours) at 4°C. The amount of retentate was estimated using either the Pierce BCA Protein Assay or absorption at 360nm (for vitamin B_{12}).

7K MWCO



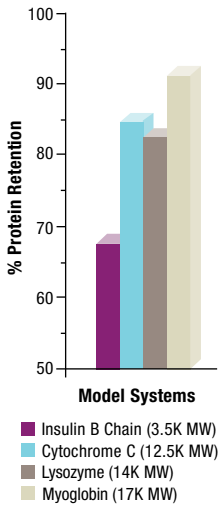
Sample retention by the 7K MWCO Thermo Scientific Slide-A-Lyzer Cassette membrane. Vitamin B_{12}, insulin B chain, insulin and cytochrome C (1mg/mL) in either 0.15M sodium chloride or 0.2M carbonate bicarbonate buffer, pH 9.4 were dialyzed overnight (17 hours) at 4°C. The amount of retentate was estimated using either the Pierce BCA Protein Assay or absorption at 360nm (for vitamin B_{12}).

10K MWCO



Sample retention by the 10K MWCO Thermo Scientific Slide-A-Lyzer Cassette membrane. Insulin B chain, insulin and cytochrome C (1mg/mL) in either 0.15M sodium chloride or 0.2M carbonate bicarbonate buffer, pH 9.4 were dialyzed overnight (17 hours) at 4°C. The amount of retentate was estimated using the Pierce BCA Protein Assay.

20K MWCO



Sample retention by the 20K MWCO Thermo Scientific Slide-A-Lyzer Cassette membrane. Insulin B chain, cytochrome C, lysozyme and myoglobin were dialyzed overnight (17 hours) at 4°C in PBS, pH 7.4. The amount of retentate was estimated using the Pierce BCA Protein Assay.

High Protein Recovery for Small-Volume Dialysis

Slide-A-Lyzer MINI Dialysis Devices and Pierce 96-well Microdialysis Plates are the ideal formats for the dialysis of sample volumes between 10µL and 2mL. They are simple to use and provide high protein recovery.

MINI Dialysis Devices

The Slide-A-Lyzer MINI Dialysis Devices have a unique cup-like design and are available in 0.1, 0.5 and 2mL capacities. They consist of two formats: 0.1mL devices, which can be placed into a foam float during dialysis, and 0.5mL and 2mL sizes, which fit into and are capped by inserting them into the included 15mL and 50mL conical tubes, respectively. The tubes serve as dialysis reservoirs for easy and self-contained dialysis.

Microdialysis Plate

The Pierce 96-well Microdialysis Plate is an automation-compatible system for simultaneously dialyzing between 1 and 96 samples with volumes from 10µL to 100µL. The dialysis inserts are provided in strips of eight preloaded in a 96-well deep-well plate, but can be separated easily for use as individual dialysis devices in a standard microcentrifuge tube.

Thermo Scientific Slide-A-Lyzer MINI Dialysis Devices

Self-contained devices for sample volumes as small as 10µL

Slide-A-Lyzer MINI Dialysis Devices are disposable polypropylene cups with integrated, low-binding membranes for dialysis and high recovery of proteins and macromolecules in volumes from 10µL to 2mL.

Slide-A-Lyzer MINI Dialysis Devices allow easy sample addition and removal using a standard laboratory pipette and can be used for single or arrays of samples. The self-contained, single-use devices require no syringes, centrifuge, beakers or laborious steps. Using the Slide-A-Lyzer MINI Dialysis Devices, low-molecular weight contaminant removal, buffer exchange and desalting can be accomplished within 4-8 hours with high protein recovery (Table 1). Dialysis efficiencies, rates and recoveries are similar to conventional dialysis using a large volume of buffer (Figure 1).

Highlights

- **Excellent sample recoveries** – low-binding plastic and small membrane surface area minimize sample loss compared to filtration and resin systems
- **One-step protocol** – pipette sample into the Slide-A-Lyzer MINI Device and place in tube containing the dialysis buffer; no laborious assembly, device preparation or expensive equipment is required
- **100% leak tested** – innovative design does not permit "wicking" that can occur in homemade devices
- **Minimal dialysis buffer required** – eliminates waste

The 0.1mL Slide-A-Lyzer MINI Dialysis Devices, for use with sample volumes of 10-100µL, are available in MWCOs of 2K, 3.5K, 7K, 10K or 20K and are used with standard 1.5mL microcentrifuge tubes (Figure 2).

The 0.5mL and 2mL Slide-A-Lyzer MINI Dialysis Devices, available in 3.5K, 10K or 20K MWCOs, are used for processing 50-500µL and 200-2,000µL samples, respectively. The devices fit into and are capped by inserting them into the included 15mL or 50mL conical tubes (Figure 3). The tubes can be securely placed in standard laboratory racks or shakers, saving space, minimizing the risk of spills or contamination, and eliminating the need for floats or large beakers of buffer.

Slide-A-Lyzer MINI Dialysis Devices are manufactured in a HEPA filtered clean-room facility, and 100% of units are vacuum-leak tested to ensure the highest quality and safety for your samples.

Table 1. High protein recovery is obtained using the 2mL Thermo Scientific Slide-A-Lyzer MINI Dialysis Device.†

Membrane MWCO (K)	Protein/Peptide	Recovery (%)
3.5	Insulin Chain B (3.5kDa)	90.13
10	Cytochrome C (12.4kDa)	94.44
20	Myoglobin (17kDa)	95

† Insulin chain B, cytochrome C and myoglobin (0.25mg/mL) in either 50mM sodium phosphate, 75mM NaCl at pH 7.2 or 0.2M carbonate-bicarbonate buffer at pH 9.4 were dialyzed overnight (17 hours) at 4°C. The amount of protein in the retentate was determined using the Pierce BCA Protein Assay (Product # 23225).

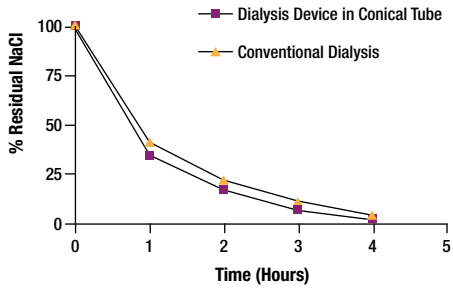
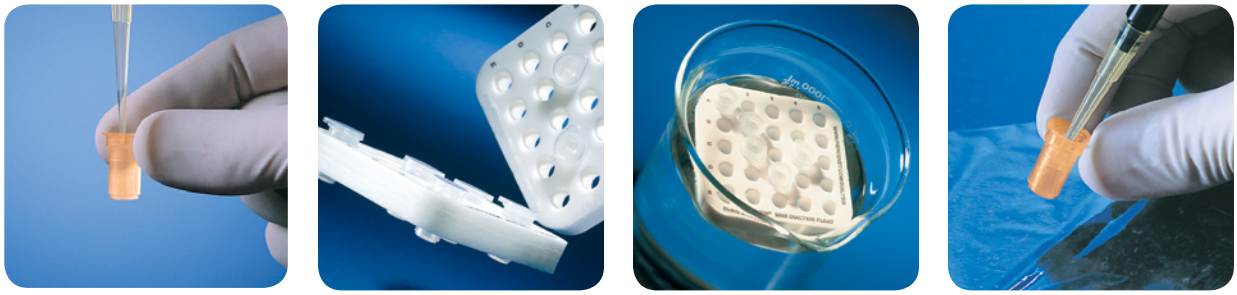


Figure 1. Rate of removal of NaCl using a 10K MWCO, 2mL Thermo Scientific Slide-A-Lyzer MINI Dialysis Device versus conventional dialysis. Bovine serum albumin (BSA) samples (2mL, 0.25mg/mL in 1M NaCl) were dialyzed against 45mL of water in 50mL disposable conical tubes on an orbital shaker (300 rpm) at room temperature. The water was changed once after 2 hours. Results are the average of two samples. Similar results were obtained with the 0.5mL device (data not shown). For conventional dialysis, the samples were dialyzed against 2L of water in a beaker with stirring. The rate of NaCl removal was determined by measuring the conductivity of the retentate at the indicated times. Greater than 95% of NaCl was removed within 4 hours.



1. Apply sample with a pipette.
2. Place the Slide-A-Lyzer MINI Dialysis Device into the float.
3. Insert the float into the beaker containing the dialysate.
4. Recover sample.

Figure 2. Sample dialysis using a 0.1mL Thermo Scientific Slide-A-Lyzer MINI Dialysis Device. The required float is sold separately.

1. Add sample into the device.
2. Place the device into the conical tube containing the buffer and cap the tube.
3. Shake gently on an orbital shaker.
4. Replace dialysis buffer after 2-3 hours and shake for an additional 2-4 hours or overnight.
5. Remove the device from the conical tube and recover the sample.

Figure 3. Sample dialysis with a 0.5mL or 2mL Thermo Scientific Slide-A-Lyzer MINI Dialysis Device.

See ordering information on pages 22-25.

Thermo Scientific Pierce 96-well Microdialysis Plate

Dialysis convenience in a 96-well plate

Pierce 96-well Microdialysis Plates are automation-compatible, microplate dialysis devices (3.5K or 10K MWCO) for rapid, simultaneous processing of 1 to 96 samples with volumes from 10 to 100µL.

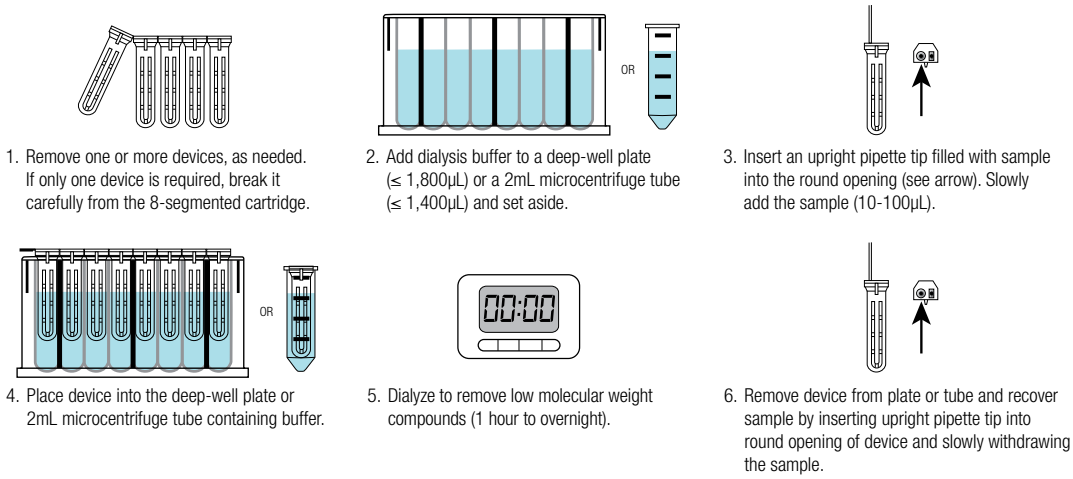
Each microdialysis device has two regenerated cellulose membranes separated by < 2mm. This combination of short diffusion distance and large surface area allows for rapid dialysis. In addition, the small distance between the membranes allows highly efficient sample recovery using standard laboratory pipettes. The low-binding, regenerated cellulose membranes are rated to retain proteins and other macromolecules that are larger than the MWCO while allowing removal of buffer salts and small contaminants < 1,000 daltons in size.

Highlights

- **Efficient and rapid dialysis** – dialysis completed in 2-4 hours with > 99% salt removal
- **Excellent sample recovery** – > 90% protein recovery after dialysis
- **Ideal for small sample volume dialysis** – uses sample volumes from 10-100µL
- **Easy to use** – complete sample loading and retrieval with a standard pipette
- **Flexible** – detachable 8-unit strips; scalable from 1 to 96 samples
- **Automation-compatible** – plate format conforms to SBS Microplate Standard

Easy-to-Use, Flexible Format

The dialysis chambers come in strips of eight units that can be easily separated allowing you to utilize just the number of units needed for your experiment. Dialysis can be efficiently performed in a standard 96 deep-well plate using a minimal amount of buffer. The assembled device is compatible with standard 96-well laboratory equipment and automated liquid-handling systems, making it an ideal option for high-throughput applications. Each device can also be used independently in a 2mL microcentrifuge tube. When used according to the method outlined in Figure 1, the Pierce 96-well Microdialysis Plate enables the removal of low-molecular weight contaminants, buffer exchange and desalting within two to four hours (Figure 2) with typical protein recoveries of > 90%.



1. Remove one or more devices, as needed. If only one device is required, break it carefully from the 8-segmented cartridge.
2. Add dialysis buffer to a deep-well plate (≤ 1,800µL) or a 2mL microcentrifuge tube (≤ 1,400µL) and set aside.
3. Insert an upright pipette tip filled with sample into the round opening (see arrow). Slowly add the sample (10-100µL).
4. Place device into the deep-well plate or 2mL microcentrifuge tube containing buffer.
5. Dialyze to remove low molecular weight compounds (1 hour to overnight).
6. Remove device from plate or tube and recover sample by inserting upright pipette tip into round opening of device and slowly withdrawing the sample.

Figure 1. Protocol summary for the Thermo Scientific Pierce 96-well Microdialysis Plate.

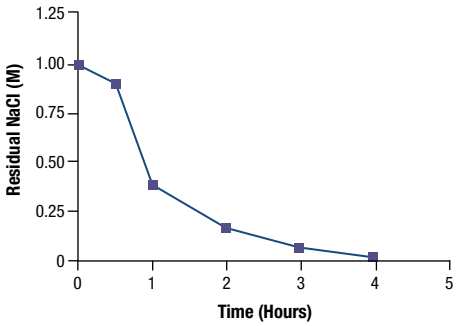


Figure 2. Rate of removal of NaCl in the Thermo Scientific Pierce 96-well Microdialysis Plate. Samples of 0.1mL (0.4mg/mL cytochrome C containing 1M NaCl) were dialyzed against 1.8mL of water in a 96 deep-well plate at RT with gentle shaking. The buffer was changed at 1-, 2- and 3-hour intervals over a 4-hour period. The rate of NaCl removal was determined by measuring the conductivity of the retentate at the indicated time intervals. Removal of NaCl was > 83% after 2 hours and > 99% after 4 hours. Rate of dialysis depends on a variety of factors including membrane properties, temperature and agitation; molecular weight, shape and charge of the molecules passing through the membranes; and the pH, ionic strength, and solvent characteristic of the buffers being used.

See ordering information on pages 22-25.

high-performance
for sample volumes up to 30mL

Three Generations of Dialysis Device Innovation

Slide-A-Lyzer Dialysis Cassettes and Flasks facilitate rapid and trouble-free dialysis for sample volumes from 100µL to 250mL. Unlike standard flat tubing, these innovative devices do not require knots or clips that can lead to leaking and sample loss. Instead, Slide-A-Lyzer Dialysis Cassettes are constructed of dialysis membranes separated by an inert gasket and sandwiched between two halves of a translucent plastic case that is sonically welded together.

The original Slide-A-Lyzer Cassettes, with capacities ranging between 0.5mL and 30mL, were designed with a sealed inner chamber, allowing the sample to be accessed by inserting a syringe needle through the inlet port. The Thermo Scientific™ Slide-A-Lyer™ G2 Dialysis Device provides two additional features: a unique pipette-accessible port and an air chamber that allows the device to self-float. In addition, the G2 Cassette portfolio was expanded to include a device with a 70mL capacity.

The easy-to-use Slide-A-Lyzer Flask was introduced for use with sample volumes from 150mL to 250mL. Sample can be added or removed using a serological pipette or by directly pouring the sample through a wide screw-cap opening at the top of the flask. No knots or clips are needed to seal the units. The cassette and flask designs optimize surface area-to-sample volume ratio and allow excellent sample recoveries.

All Slide-A-Lyzer products are manufactured using clean room conditions and have low-protein binding, regenerated cellulose membranes to ensure maximum sample recovery and sample purity.

redesigned
for easier sample handling

Traditional Tubing	vs.	Cassette
Slippery When Wet Flat tubing is difficult to handle when wet, increasing risk of sample loss during sample addition/removal	sample handling	**Easy Handling and Secure Sample Delivery** Plastic frame and cap allow for secure sample addition/removal
Risk of Sample Loss Sample can leak out if clamp becomes loose or falls off	sample recovery	**Sample Protection** Welded membrane and leak-proof cap eliminate risk of sample loss
Time Consuming Non-optimized design that typically requires overnight dialysis	speed	**Fast and Efficient** Innovative design with high surface/volume ratio allows for more rapid dialysis than conventional tubing

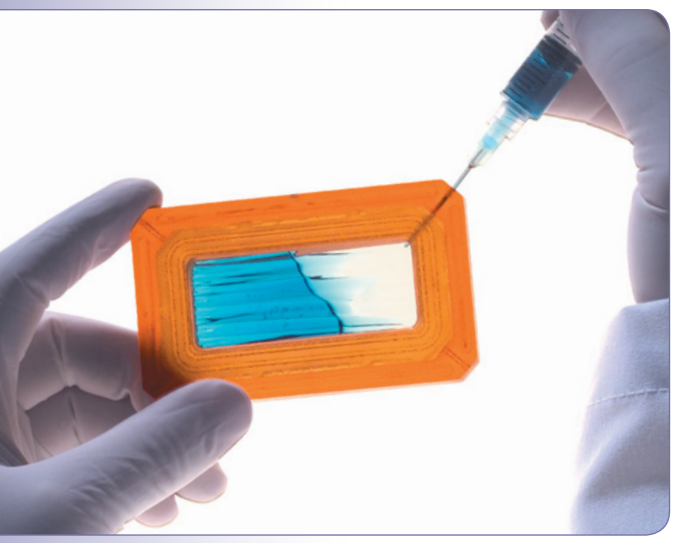
Comparison of Thermo Scientific Slide-A-Lyzer Cassettes with traditional dialysis tubing.

an optimized device
for large-volume dialysis

Original Thermo Scientific Slide-A-Lyzer Dialysis Cassette

Faster and easier to use than dialysis tubing

Slide-A-Lyzer Dialysis Cassettes facilitate rapid and effective dialysis for sample volumes from 100µL to 30mL. The cassette design maximizes surface area-to-sample volume ratio and allows excellent sample recoveries (Table 1). Unlike standard flat tubing, these innovative cassettes do not require knots or clips that can lead to leaking and sample loss, resulting in more complete sample recovery.



The Slide-A-Lyzer Dialysis Cassettes are available in five membrane MWCOs (2K, 3.5K, 7K, 10K and 20K) and in four different sizes for dialyzing sample volumes between 0.1 and 30mL. Slide-A-Lyzer Cassettes can be used for a wide range of applications, including low-molecular weight contaminant removal, buffer exchange, desalting and sample concentration.

Highlights

- **Easy to use** – no knots or clamps are needed; just inject sample into cassette and begin dialysis (Figure 1)
- **Fast dialysis** – flat cassette chamber with two membranes provides high surface area-to-volume ratio that maximizes diffusion rate compared to cylindrical dialysis tubing
- **High recovery** – rectangular cassette design maximizes recovery of entire sample volume via any one of the four corner injection ports
- **Four cassette sizes** – select the cassette that best suits your sample volume
- **Sterile option** – gamma-irradiated 10K MWCO cassettes are available for applications requiring sterile conditions

Table 1. Quantitative sample recovery.

Three sample volume batches of water (0.5mL, 1.7mL and 3.0mL) were loaded and recovered per the respective manufacturer's instructions in a Slide-A-Lyzer Dialysis Cassette or conventional dialysis tubing to determine the volumes of recovery. Water volume recovered was determined gravimetrically.

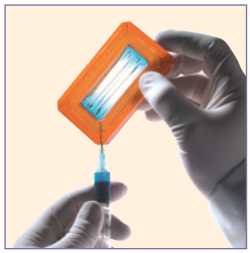
Sample Volume Loaded	Thermo Scientific Slide-A-Lyzer Dialysis Cassette % Volume Recovery	Traditional Dialysis Tubing % Volume Recovery
3.0mL	99.47	92.32
1.7mL	99.30	93.12
0.5mL	98.76	87.51

Unique Construction

Slide-A-Lyzer Dialysis Cassettes are constructed from two sheets of low-binding, regenerated cellulose dialysis membrane that are hermetically sealed on either side of a silicone-like gasket inside an inert plastic frame (Figure 2). Liquid samples are easily added and removed by penetrating the self-sealing gasket with a hypodermic needle attached to a syringe. The membrane and cassette materials are compatible with most common laboratory chemicals and buffers.

1. Insert syringe needle through the gasket via one of the corner ports. Inject the sample, withdraw the excess air and remove the syringe.

2. Attach a float buoy and dialyze. (Buoys also serve as convenient bench-top stands for the cassettes.)



3. Insert empty syringe needle at a second corner port. Inject air to expand the cassette chamber, then withdraw the dialyzed sample.

Figure 1. Thermo Scientific Slide-A-Lyzer Cassette procedure summary.

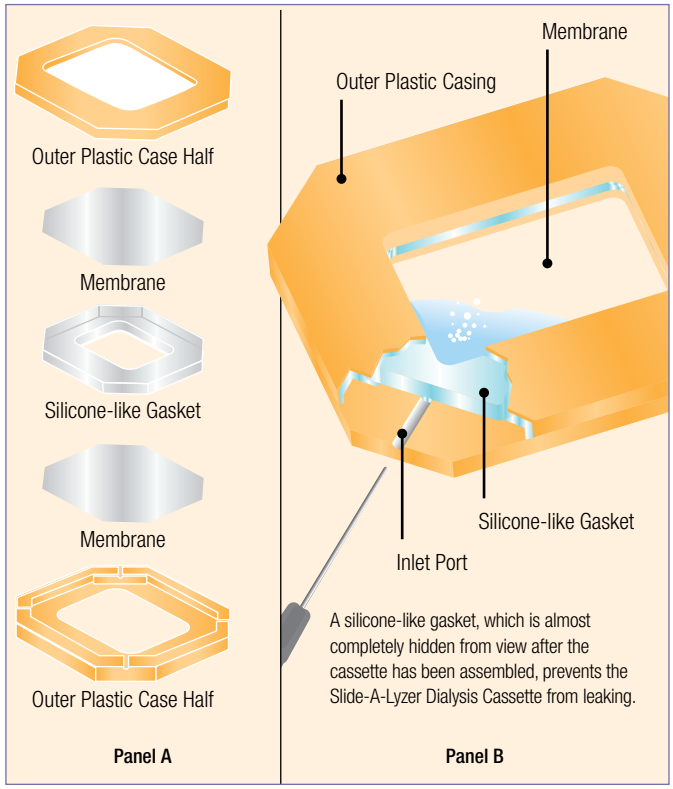
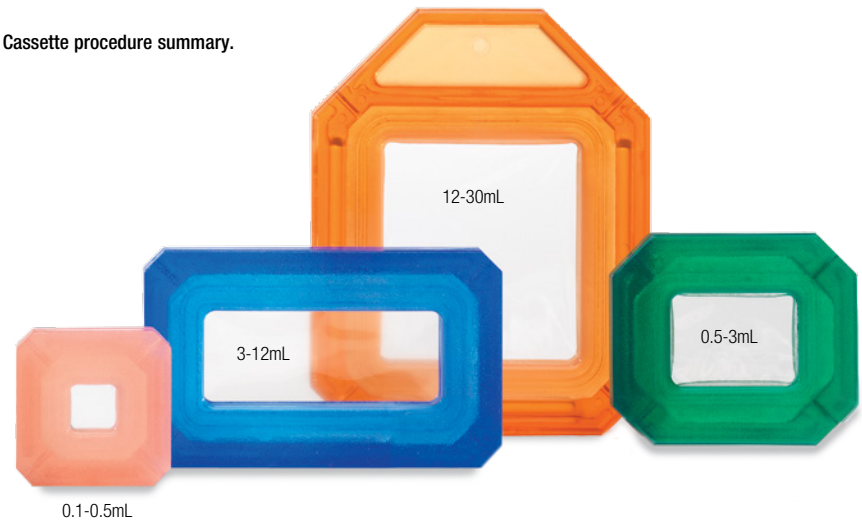


Figure 2. Thermo Scientific Slide-A-Lyzer Cassette design. The Slide-A-Lyzer Dialysis Cassette (exploded view) looks like a sandwich (Panel A). When all of the pieces are compressed together (Panel B), the outer plastic case halves are welded together sonically, hermetically sealing an inner chamber that can be accessed only via a syringe needle inserted through the inlet port. Because the inert gasket is 10mm wide, the needle path is sealed completely and tightly when the syringe is withdrawn.



See ordering information on pages 22-25.

Thermo Scientific Slide-A-Lyzer G2 Dialysis Cassettes

Maximum convenience for high-performance dialysis

Slide-A-Lyzer G2 Dialysis Cassettes provide maximum convenience, flexibility and performance for sample dialysis. These second-generation (G2) Slide-A-Lyzer Dialysis Cassettes are free-standing, self-floating and pipette-loadable. Sample loading and removal are easily accomplished by using a serological pipette or hypodermic needle (optional) attached to a syringe (Figure 1). The built-in air chamber provides sample buoyancy and vertical orientation of the cassette during dialysis.

Highlights

- **Easy loading** – pipette-accessible for easy sample loading and retrieval
- **Self-floating** – integrated air chambers eliminate the need for float buoys
- **Sturdy construction** – ensures the highest possible sample integrity and protection
- **Superior design** – thoroughly researched and tested to provide fast and consistent dialysis with maximum sample recovery
- **Multiple sizes** – five cassette capacities to optimally match 0.25 to 70mL sample volumes
- **Versatile** – ideal for removing low-molecular weight contaminants, performing buffer exchange and desalting
- **Sterile option** – gamma-irradiated 10K MWCO cassettes are available for applications requiring sterile conditions

Choose Your Cassette

The single-use, disposable Slide-A-Lyzer G2 Dialysis Cassettes are available in five membrane MWCOs (2K, 3.5K, 7K, 10K and 20K) and in five different sizes for dialyzing sample volumes between 0.25 and 70mL. The membrane is composed of low-binding, regenerated cellulose, and the cassettes are manufactured using clean-room conditions. Select sizes of 10K MWCO Slide-A-Lyzer G2 Cassettes are also available in packages that have been gamma-irradiated to sterilize them. Gamma-irradiated Slide-A-Lyzer G2 Dialysis Cassettes are ideal for researchers culturing cells and microorganisms; purifying viruses, DNA and RNA; or performing sample preparation for other applications requiring sterile conditions to minimize the risk of sample contamination.

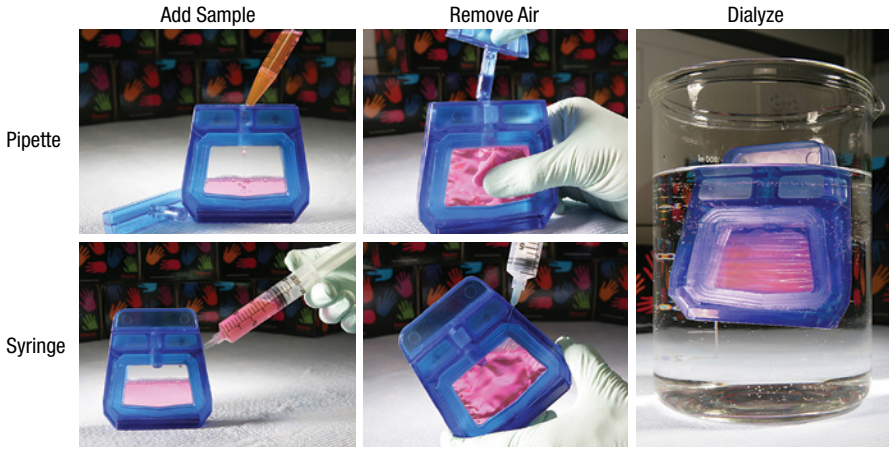


Figure 1. Easy sample loading and recovery. Samples can be loaded into a Slide-A-Lyzer G2 Dialysis Cassette with either a syringe or with a pipette through the unique sample port. The Slide-A-Lyzer Cassette design allows air to be removed from inside the cassette to maximize the surface area-to-volume ratio, providing better dialysis performance than dialysis tubing and tube-based systems. The sample is easily recovered through either the pipette or syringe sample ports. *For a demonstration of the Slide-A-Lyzer G2 Cassettes, please go to* ***thermoscientific.com/salG2****.*

See ordering information on pages 22-25.

Thermo Scientific Slide-A-Lyzer Concentrating Solution

A single device for dialyzing and concentrating your samples

Thermo Scientific™ Slide-A-Lyzer™ Concentrating Solution effectively decreases the volume of samples by hygroscopically removing water from the sample through ordinary dialysis. The solution contains a proprietary, high-purity and high-molecular weight compound that osmotically absorbs water across dialysis membranes to rapidly concentrate samples without the risk of contaminating the sample. Unlike typical homemade formulations, the Slide-A-Lyzer Concentrating Solution does not contain any contaminants that can permeate dialysis membranes that have molecular weight cutoffs (MWCOs) less than 12,000 daltons.

Slide-A-Lyzer Concentrating Solution is ideally suited for use with Slide-A-Lyzer Dialysis Cassettes and MINI Units (up to 10K MWCO membrane only). Simply place the cassette containing the sample in a small plastic bag with sufficient concentrating solution to cover the cassette. By diffusion and osmosis, the water and other small molecules are drawn out of the dialysis unit into the bag containing the concentrating solution. Because of the large molecular size of the concentrating solution compound, it does not cross the membrane and enter the inside of the dialysis chamber. Therefore, a one-way movement of water and other small molecules out of the dialysis chamber results in a more concentrated sample (Figure 1).

Highlights

- **Minimizes protein loss** – by enabling dialysis and concentration in a single device
- **Faster concentration** – decreases volume of a 3mL sample to 0.5mL in about 75 minutes
- **Easy to use** – just pour the Slide-A-Lyzer Concentrating Solution into the small plastic bag provided and drop in the Slide-A-Lyzer Dialysis Cassette containing the sample
- **Improved formulation and protocols** – improved product makes concentration easier with rocking-platform protocols
- **The process can be monitored** – because both the concentrating solution and the bag are clear, the sample can be easily monitored, something that is not possible with closed-system, centrifuge-type devices

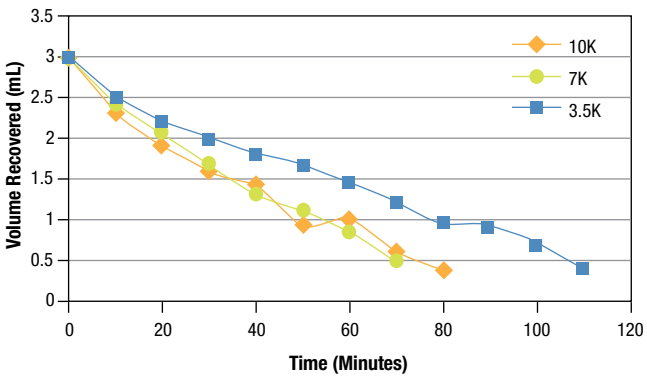


Figure 1. Rapid sample concentration. Slide-A-Lyzer Concentrating Solution quickly reduces a starting volume of 3mL of sample inside the Slide-A-Lyzer Dialysis Cassette to 0.5mL in about 50 minutes.

See ordering information on pages 22-25.

NEW **Thermo Scientific Slide-A-Lyzer Dialysis Flasks**

Flask-style bottles for large-volume dialysis (150-250mL)

Slide-A-Lyzer Dialysis Flasks facilitate simple and effective removal of buffer salts and small contaminants from proteins and other macromolecules in sample volumes up to 250mL. Slide-A-Lyzer Dialysis Flasks are available in four molecular weight cutoffs (MWCOs): 2K, 3.5K, 10K and 20K and are color-coded for easy identification. With Slide-A-Lyzer Dialysis Flasks, typical low-molecular weight contaminant removal, buffer exchange and desalting can be accomplished in as few as 8 hours. The flasks are manufactured using clean-room conditions. The flasks are constructed from two sheets of low-protein binding, regenerated cellulose membranes to ensure maximum sample recovery and purity and contain up to 85% less plastic per volume compared to other devices.

Highlights

- **Easy to use** – simply pipette or pour sample into flask, replace and tighten cap, and begin dialysis
- **Fast dialysis** – flat flask chamber with two membranes provides high surface area-to-volume ratio, enabling dialysis of a 250mL sample in as few as 8 hours
- **High recovery** – rectangular flask design maximizes recovery of entire sample volume via opening at top of flask
- **Color-coded frames** – easily identify membrane pore size (MWCO) based on the frame color

Easy Sample Loading and Recovery

Slide-A-Lyzer Dialysis Flasks eliminate the risk of sample loss associated with handling long lengths of slippery dialysis tubing. No knots or clips are needed to seal the units. Sample addition and removal are easily accomplished by pipetting or directly pouring the sample through the wide-mouth opening at the top of the flask (Figure 1). A simple screw cap easily and reliably seals the device.

Efficient Dialysis

Slide-A-Lyzer Dialysis Flasks are compatible with most laboratory buffers, and can accomplish a low-molecular weight contaminant removal, buffer exchange and desalting in 8 hours to overnight (Figure 2). The rate of dialysis depends on a variety of factors, including sample volume and size, shape of the molecule being dialyzed, agitation, and temperature. Minimum dialysis time must be determined empirically for each specific system.

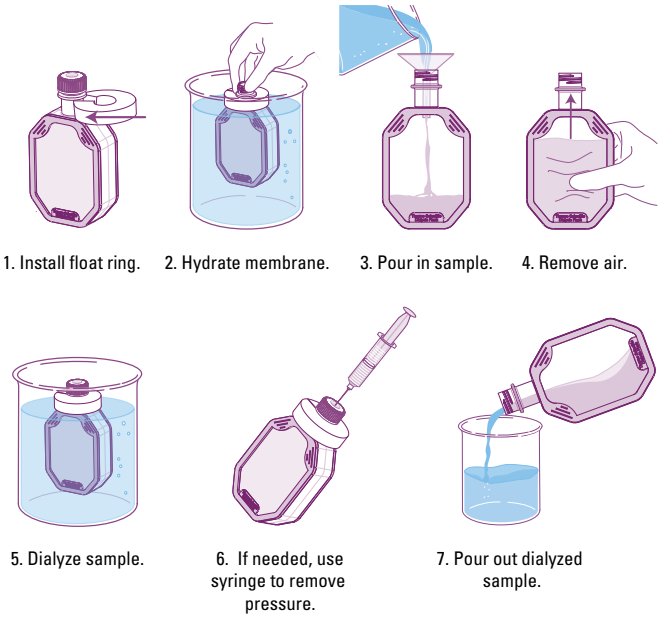


Figure 1. Easy sample loading and recovery. Attach supplied float-ring and hydrate membrane for 2 minutes. Pour sample into device. Remove air and cap. Dialyze for 8 hours to overnight (replace buffer after 2 and 5 hours). Pour out sample to recover.

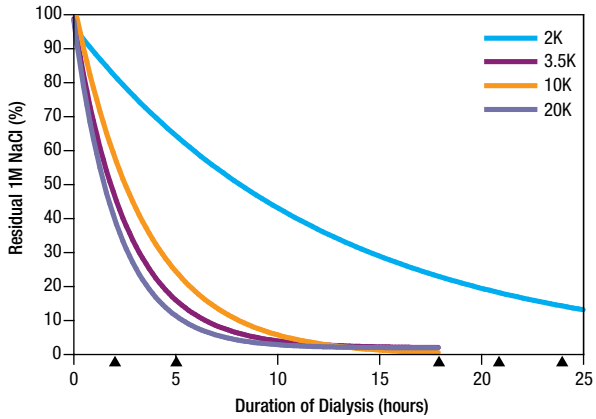


Figure 2. Effective sample dialysis with Thermo Scientific Slide-A-Lyzer Dialysis Flasks. Rates of removal of 1M NaCl from 200mL samples in 2K, 3.5K, 10K, and 20K MWCO dialysis flasks. For each dialysis experiment, 200mL samples containing 1M NaCl were dialyzed at room temperature. The dialysis buffer (4L) was changed after 2 and 5 hours. The rate of NaCl removal was determined by measuring the conductivity at the indicated times (triangles; also at 41 hours for the 2K condition). Greater than 95% of NaCl was removed within 8 to 18 hours (41 hours for the 2K condition). These dialysis efficiencies, rates and recoveries are similar to conventional tubing-based dialysis.

See ordering information on pages 22-25.

Thermo Scientific SnakeSkin Dialysis Tubing

Avoid the hassles of flat tubing

SnakeSkin Dialysis Tubing is an easy- and ready-to-use form of traditional dialysis membrane tubing that allows desalting and buffer exchange for 10 to 100mL samples, and it does not require presoaking or boiling prior to use. To use, simply pull out and cut off the required length of tubing, fold over one end of tubing and close with a dialysis clip, add sample at the open end, and use a second clip to close the remaining end.

Highlights

- **Convenient** – ready-to-use, pre-wetted, pleated tube
- **High recovery** – greater than 90% protein recovery
- **Speed** – dialysis is generally completed in 4 to 6 hours
- **Stability** – compatible with a variety of laboratory solutions, including acids, bases, hydrophobic solvents and alcohols

Figure 1. Thermo Scientific SnakeSkin Dialysis Tubing.

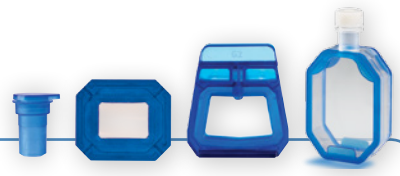
SnakeSkin Dialysis Tubing is composed of regenerated cellulose dialysis tubing and supplied as an open, pleated (telescoped) tube. It is supplied in eight inch (20cm) sticks containing 35 feet of dialysis tubing having a 16, 22 or 35mm circular internal diameter (I.D.). The hydrated SnakeSkin Dialysis Tubing holds ~2 to 10mL of sample per centimeter of length. Because SnakeSkin Dialysis Tubing is made from the same type of regenerated cellulose as flat tubing, its dialysis performance matches that of conventional tubing.

SnakeSkin Dialysis Tubing is available in three molecular weight cutoffs: 3.5K, 7K and 10K, with an internal diameter of 22mm. The 3.5K and 10K MWCO membranes are also available with internal diameters of 16 and 35mm.

See ordering information on pages 22-25.

Ordering Information

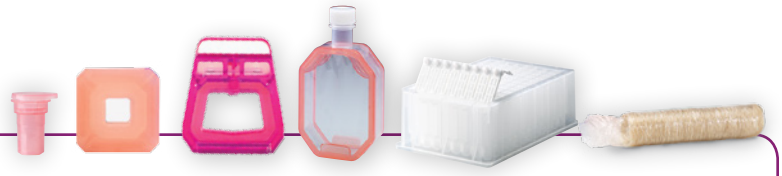
2K MWCO Membrane Products



Product #	Description	Capacity	Pkg. Size
100µL Capacity Slide-A-Lyzer MINI Dialysis Devices			
69580	Slide-A-Lyzer MINI Dialysis Device *Sufficient caps are included*	10-100µL	50/pkg.
69553	Slide-A-Lyzer MINI Dialysis Device *Sufficient caps are included*	10-100µL	250/pkg.
0.5mL Capacity Slide-A-Lyzer Dialysis Cassettes			
87717	Slide-A-Lyzer G2 Dialysis Cassette	0.1-0.5mL	10/pkg.
66205	Slide-A-Lyzer Dialysis Cassette	0.2-0.5mL	10/pkg.
3mL Capacity Slide-A-Lyzer Dialysis Cassettes			
87718	Slide-A-Lyzer G2 Dialysis Cassette	0.5-3mL	10/pkg.
66203	Slide-A-Lyzer Dialysis Cassette	0.5-3mL	10/pkg.

Product #	Description	Capacity	Pkg. Size
12mL Capacity Slide-A-Lyzer Dialysis Cassettes			
66212	Slide-A-Lyzer Dialysis Cassette	3-12mL	8/pkg.
15mL Capacity Slide-A-Lyzer G2 Dialysis Cassettes			
87719	Slide-A-Lyzer G2 Dialysis Cassette	15mL	8/pkg.
30mL Capacity Slide-A-Lyzer Dialysis Cassettes			
87720	Slide-A-Lyzer G2 Dialysis Cassette	30mL	6/pkg.
66230	Slide-A-Lyzer Dialysis Cassette	12-30mL	6/pkg.
70mL Capacity Slide-A-Lyzer G2 Dialysis Cassettes			
87721	Slide-A-Lyzer G2 Dialysis Cassette	70mL	6/pkg.
250mL Capacity Slide-A-Lyzer Dialysis Flask			
87760	Slide-A-Lyzer Dialysis Flask	250mL	4 flasks

3.5K MWCO Membrane Products



Product #	Description	Capacity	Pkg. Size
100µL Capacity Slide-A-Lyzer MINI Dialysis Devices			
69550	Slide-A-Lyzer MINI Dialysis Device *Sufficient caps are included.*	10-100µL	50/pkg.
69558	Slide-A-Lyzer MINI Dialysis Devices and Float *Sufficient caps are included.*	10-100µL	10/pkg.
69552	Slide-A-Lyzer MINI Dialysis Device *Sufficient caps are included.*	10-100µL	250/pkg.
0.5mL Capacity Slide-A-Lyzer Dialysis Cassettes			
87722	Slide-A-Lyzer G2 Dialysis Cassette	0.1-0.5mL	10/pkg.
66333	Slide-A-Lyzer Dialysis Cassette	0.1-0.5mL	10/pkg.
66335	Slide-A-Lyzer Dialysis Cassette Kit *Contains 10 cassettes, 10 buoys and 10 syringes.*	0.1-0.5mL	Kit
0.5mL Capacity Slide-A-Lyzer MINI Dialysis Devices			
88400	Slide-A-Lyzer MINI Dialysis Device, 3.5K MWCO	0.5mL	25/pkg.
2mL Capacity Slide-A-Lyzer MINI Dialysis Devices			
88403	Slide-A-Lyzer MINI Dialysis Device, 3.5K MWCO	2mL	25/pkg.
3mL Capacity Slide-A-Lyzer Dialysis Cassettes			
87723	Slide-A-Lyzer G2 Dialysis Cassette	0.5-3mL	10/pkg.
66330	Slide-A-Lyzer Dialysis Cassette	0.5-3mL	10/pkg.
66332	Slide-A-Lyzer Dialysis Cassette Kit *Contains 10 cassettes, 10 buoys and 10 syringes.*	0.5-3mL	Kit
12mL Capacity Slide-A-Lyzer Dialysis Cassettes			
66110	Slide-A-Lyzer Dialysis Cassette	3-12mL	8/pkg.
66107	Slide-A-Lyzer Dialysis Cassette Kit	3-12mL	Kit

Product #	Description	Capacity	Pkg. Size
15mL Capacity Slide-A-Lyzer G2 Dialysis Cassettes			
87724	Slide-A-Lyzer G2 Dialysis Cassette	15mL	8/pkg.
30mL Capacity Slide-A-Lyzer Dialysis Cassettes			
87725	Slide-A-Lyzer G2 Dialysis Cassette	30mL	6/pkg.
66130	Slide-A-Lyzer Dialysis Cassette	12-30mL	6/pkg.
70mL Capacity Slide-A-Lyzer G2 Dialysis Cassettes			
87726	Slide-A-Lyzer G2 Dialysis Cassette	70mL	6/pkg.
250mL Capacity Slide-A-Lyzer Dialysis Flask			
87761	Slide-A-Lyzer Dialysis Flask	250mL	4 flasks
SnakeSkin Dialysis Tubing			
88242	SnakeSkin Dialysis Tubing, 3.5K MWCO, 16mm *Sufficient For: Approx. 10mL per 5cm length (plus 2.5cm at each end for closure) yields 100 uses*		35 ft./pkg.
68035	SnakeSkin Dialysis Tubing, 3.5K MWCO, 22mm *Sufficient For: Approx. 19mL per 5cm length (plus 2.5cm at each end for closure) yields 100 uses*		35 ft./pkg.
88244	SnakeSkin Dialysis Tubing, 3.5K MWCO, 35mm *Sufficient For: Approx. 48mL per 5cm length (plus 2.5cm at each end for closure) yields 100 uses*		35 ft./pkg.
96-well Plates			
88262	Pierce 96-well Microdialysis Plates, 3.5K MWCO Formulation: Dialysis membrane framed in plastic insert with 96-well deep-well plate *Sufficient For: Dialysis of 96 samples 10 to 100µL each* Kit Contents: 8-microdialysis device strip, 12 strips 96-deep well plate, 1 plate		1-plate set
88261	96-well Deep-well Plate, 2.2mL Formulation: Polypropylene deep-well assay plate *Sufficient For: 96 microdialysis devices*		1 plate
88269	Pierce Plate Seal for Pierce 96-well Microdialysis Plates Formulation: Adhesive coated plastic sheet, perforated to 8-well strips fitting microdialysis plate *Sufficient For: 12 x 8 microdialysis plate wells*		1 sheet

7K MWCO Membrane Products

Product #	Description	Capacity	Pkg. Size
100µL Capacity Slide-A-Lyzer MINI Dialysis Devices			
69560	Slide-A-Lyzer MINI Dialysis Device *Sufficient caps are included.*	10-100µL	50/pkg.
69562	Slide-A-Lyzer MINI Dialysis Device *Sufficient caps are included.*	10-100µL	250/pkg.
0.5mL Capacity Slide-A-Lyzer Dialysis Cassettes			
66373	Slide-A-Lyzer Dialysis Cassette	0.1-0.5mL	10/pkg.
87727	Slide-A-Lyzer G2 Dialysis Cassette	0.1-0.5mL	10/pkg.

Product #	Description	Capacity	Pkg. Size
3mL Capacity Slide-A-Lyzer Dialysis Cassettes			
87728	Slide-A-Lyzer G2 Dialysis Cassette	0.5-3mL	10/pkg.
66370	Slide-A-Lyzer Dialysis Cassette	0.5-3mL	10/pkg.
66372	Slide-A-Lyzer Dialysis Cassette Kit *Contains 10 cassettes, 10 buoys and 10 syringes.*	0.5-3mL	Kit
12mL Capacity Slide-A-Lyzer Dialysis Cassettes			
66710	Slide-A-Lyzer Dialysis Cassette	3-12mL	8/pkg.
66707	Slide-A-Lyzer Dialysis Cassette Kit *Contains 8 cassettes, 8 buoys and 10 syringes.*	3-12mL	Kit
Snakeskin Dialysis Tubing			
68700	SnakeSkin Dialysis Tubing, 7K MWCO, 22mm *Sufficient For: Approx. 19mL per 5cm length (plus 2.5cm at each end for closure) yields 100 uses*		35 ft./pkg.

**Can also be used with the new Slide-A-Lyzer G2 Dialysis Cassettes.*

10K MWCO Membrane Products

Product #	Description	Capacity	Pkg. Size
100µL Capacity Slide-A-Lyzer MINI Dialysis Devices			
69574	Slide-A-Lyzer MINI Dialysis Device Plus Microtubes *Sufficient caps are included.*	10-100µL	10/pkg.
69570	Slide-A-Lyzer MINI Dialysis Device *Sufficient caps are included.*	10-100µL	50/pkg.
69572	Slide-A-Lyzer MINI Dialysis Device *Sufficient caps are included.*	10-100µL	250/pkg.
69576	Slide-A-Lyzer MINI Dialysis Device Plus Float *Sufficient caps are included.*	10-100µL	Kit/10 units
0.5mL Capacity Slide-A-Lyzer MINI Dialysis Devices			
88401	Slide-A-Lyzer MINI Dialysis Devices, 10K MWCO	0.5mL	25/pkg.
0.5mL Capacity Slide-A-Lyzer Dialysis Cassettes			
87729	Slide-A-Lyzer G2 Dialysis Cassette	0.1-0.5mL	10/pkg.
66383	Slide-A-Lyzer Dialysis Cassette	0.1-0.5mL	10/pkg.
66384	Slide-A-Lyzer Dialysis Cassette	0.1-0.5mL	5 x 10/pkg.
66385	Slide-A-Lyzer Dialysis Cassette Kit *Contains 10 cassettes, 10 buoys and 10 syringes.*	0.1-0.5mL	Kit
2mL Capacity Slide-A-Lyzer MINI Dialysis Devices			
88404	Slide-A-Lyzer MINI Dialysis Device, 10K MWCO	2mL	25/pkg.
λ Irradiated 10K MWCO Membrane			
66454	Slide-A-Lyzer Dialysis Cassette	0.1-0.5mL	10/pkg.
66455	Slide-A-Lyzer Dialysis Cassette	0.5-3mL	10/pkg.
66453	Slide-A-Lyzer Dialysis Cassette	3-12mL	8/pkg.
66456	Slide-A-Lyzer Dialysis Cassette	12-30mL	8/pkg.
88250	Slide-A-Lyzer G2 Dialysis Cassettes, 10K MWCO, 0.5mL, Gamma Irradiated Volume range using a pipette = 0.25-0.5mL Volume range using a syringe = 0.16-0.5mL		10 cassettes
88251	Slide-A-Lyzer G2 Dialysis Cassettes, 10K MWCO, 3mL, Gamma Irradiated Volume range using a pipette = 1.5-3mL Volume range using a syringe = 1-3mL		10 cassettes
88252	Slide-A-Lyzer G2 Dialysis Cassettes, 10K MWCO, 15mL, Gamma Irradiated Volume range using a pipette = 7-15mL Volume range using a syringe = 5-15mL		8 cassettes
88253	Slide-A-Lyzer G2 Dialysis Cassettes, 10K MWCO, 30mL, Gamma Irradiated Volume range using a pipette = 15-30mL Volume range using a syringe = 10-30mL		6 cassettes
88254	Slide-A-Lyzer G2 Dialysis Cassettes, 10K MWCO, 70mL, Gamma Irradiated Volume range using a pipette = 35-70mL Volume range using a syringe = 23-70mL		6 cassettes

Product #	Description	Capacity	Pkg. Size
3mL Capacity Slide-A-Lyzer Dialysis Cassettes			
87730	Slide-A-Lyzer G2 Dialysis Cassette	0.5-3mL	10/pkg.
66380	Slide-A-Lyzer Dialysis Cassette	0.5-3mL	10/pkg.
66381	Slide-A-Lyzer Dialysis Cassette	0.5-3mL	5 x 10/pkg.
66382	Slide-A-Lyzer Dialysis Cassette Kit *Contains 10 cassettes, 10 buoys and 10 syringes.*	0.5-3mL	Kit
12mL Capacity Slide-A-Lyzer Dialysis Cassettes			
66810	Slide-A-Lyzer Dialysis Cassette	3-12mL	8/pkg.
66811	Slide-A-Lyzer Dialysis Cassette	3-12mL	5 x 10/pkg.
66807	Slide-A-Lyzer Dialysis Cassette Kit *Contains 8 cassettes, 8 buoys and 10 syringes.*	3-12mL	Kit
15mL Capacity Slide-A-Lyzer G2 Dialysis Cassette			
87731	Slide-A-Lyzer G2 Dialysis Cassette	15mL	8/pkg.
30mL Capacity Slide-A-Lyzer Dialysis Cassettes			
66830	Slide-A-Lyzer Dialysis Cassette	12-30mL	6/pkg.
87732	Slide-A-Lyzer G2 Dialysis Cassette	30mL	6/pkg.
70mL Capacity Slide-A-Lyzer G2 Dialysis Cassette			
87733	Slide-A-Lyzer G2 Dialysis Cassette	70mL	6/pkg.
250mL Capacity Slide-A-Lyzer Dialysis Flask			
87762	Slide-A-Lyzer Dialysis Flask	250mL	4 flasks
SnakeSkin Dialysis Tubing			
68100	SnakeSkin Dialysis Tubing, 10K MWCO, 22mm *Sufficient For: Approx. 19mL per 5cm length (plus 2.5cm at each end for closure) yields 100 uses*		35 ft./pkg
88243	SnakeSkin Dialysis Tubing, 10K MWCO, 16mm *Sufficient For: Approx. 10mL per 5cm length (plus 2.5cm at each end for closure) yields 100 uses*		35 ft./pkg.
88245	SnakeSkin Dialysis Tubing, 10K MWCO, 35mm *Sufficient For: Approx. 48mL per 5cm length (plus 2.5cm at each end for closure) yields 100 uses*		35 ft./pkg.
Pierce 96-well Microdialysis Plates			
88260	Pierce 96-well Microdialysis Plate, 10K MWCO Dialysis membrane framed in plastic insert with deep-well plate. *Sufficient for dialysis of 96 samples 10 to 100µL each.* Kit Contents: 8-microdialysis device strip, 12 strips 96-deep well plate, 1 plate		1-plate assembly
88261	96-well Deep-well Plate, 2.2mL Polypropylene deep-well assay plate. *Sufficient for 96 microdialysis devices.*		1-plate
88269	Pierce Plate Seal for Pierce 96-well Microdialysis Plates Formulation: Adhesive coated plastic sheet, perforated to 8-well strips fitting microdialysis plate *Sufficient For: 12 x 8 microdialysis plate wells*		1 sheet

20K MWCO Membrane Products

Product #	Description	Capacity	Pkg. Size
0.5mL Capacity Slide-A-Lyzer MINI Dialysis Devices			
88402	Slide-A-Lyzer MINI Dialysis Devices, 20K MWCO, 0.5mL	0.1-0.5mL	25/pkg.
2mL Capacity Slide-A-Lyzer MINI Dialysis Devices			
88405	Slide-A-Lyzer MINI Dialysis Devices, 20K MWCO, 2mL	2mL	25/pkg.
0.5mL Capacity Slide-A-Lyzer Dialysis Cassettes			
87734	Slide-A-Lyzer G2 Dialysis Cassette	0.1-0.5mL	10/pkg.
66005	Slide-A-Lyzer Dialysis Cassette	0.1-0.5mL	10/pkg.
3mL Capacity Slide-A-Lyzer Dialysis Cassettes			
87735	Slide-A-Lyzer G2 Dialysis Cassette	0.5-3mL	10/pkg.
66003	Slide-A-Lyzer Dialysis Cassette	0.5-3mL	10/pkg.

Product #	Description	Capacity	Pkg. Size
12mL Capacity Slide-A-Lyzer G2 Dialysis Cassette			
66012	Slide-A-Lyzer Dialysis Cassette	3-12mL	8/pkg.
15mL Capacity Slide-A-Lyzer G2 Dialysis Cassette			
87736	Slide-A-Lyzer G2 Dialysis Cassette	15mL	8/pkg.
30mL Capacity Slide-A-Lyzer Dialysis Cassette			
87737	Slide-A-Lyzer G2 Dialysis Cassette	30mL	6/pkg.
66030	Slide-A-Lyzer Dialysis Cassette	12-30mL	6/pkg.
70mL Capacity Slide-A-Lyzer G2 Dialysis Cassette			
87738	Slide-A-Lyzer G2 Dialysis Cassette	70mL	6/pkg.
250mL Capacity Slide-A-Lyzer Dialysis Flask			
87763	Slide-A-Lyzer Dialysis Flask	250mL	4 flasks

Product Accessories

Product #	Description	Pkg. Size
69588	Slide-A-Lyzer MINI Dialysis Unit Float *Holds 25 MINI Dialysis Units.*	4/pkg.
66430	Slide-A-Lyzer Buoys White *Holds one 0.1-0.5mL or 0.5-3mL cassette.*	10/pkg.
66431	Slide-A-Lyzer Carousel Buoy *Holds ten 0.1-0.5mL or 0.5-3mL cassettes.*	1/pkg.
66432	Slide-A-Lyzer Buoys Grey *Holds one 3-12mL cassette.*	8/pkg.
66494	Slide-A-Lyzer Syringe (1mL)*	10/pkg.
66490	Slide-A-Lyzer Syringe (5mL)*	10/pkg.
66493	Slide-A-Lyzer Syringe (20mL)* *Each syringe comes with 18-gauge 1-inch beveled needles.*	10/pkg.

Product #	Description	Pkg. Size
87759	Slide-A-Lyzer Dialysis Flotation Disks, for use with Slide-A-Lyzer Dialysis Flasks *Reusable; each disk holds 1 flask*	6/pkg.
68011	SnakeSkin Dialysis Tubing Clips	6/pkg.
66528	Slide-A-Lyzer Concentrating Solution *For use with 0.5-3mL cassettes.*	200mL
66529	Slide-A-Lyzer Concentrating Solution *For use with 3-30mL cassettes.*	500mL
66530	Slide-A-Lyzer Concentrating Solution *For use with Slide-A-Lyzer MINI Dialysis Units.*	25mL

**Can also be used with the new Slide-A-Lyzer G2 Dialysis Cassettes.*

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