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Dialysis Products Selection Guide

Choose the appropriate dialysis membrane cut-off and device size.

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. There are, however, two major differences between the dialysis tools of yesterday and today: preparation time and sample loss (i.e., recovery). Early laboratory dialysis methods involved dedicating a significant amount of time to membrane preparation. The Thermo Scientific Pierce Dialysis Products described on this page are essentially ready to use and resist sample leakage.

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SnakeSkin Dialysis Tubing

SnakeSkin Dialysis Tubing was developed to simplify large volume sample dialysis and does not require require presoaking or boiling the membrane prior to use. SnakeSkin Dialysis Tubing is regenerated cellulose dialysis tubing that is pleated (compressed) into a hollow stick and can be used for wide range of sample volumes. The hydrated tubing will hold ~3.7mL of sample per centimeter of length.

The pleated format of SnakeSkin Dialysis Tubing makes it easy to open and ready to use; simply pull out the required length of tubing, cut it off and apply a closure. The recommended closures, SnakeSkin Dialysis Tubing Clips, are sold separately. Alternatively, SnakeSkin Dialysis Tubing can also be closed with knots after prewetting the tubing in water or buffer.

SnakeSkin Dialysis Tubing is available in three molecular weight cut-off (MWCO) specifications: 3.5K, 7K and 10K.



[SnakeSkin Dialysis Tubing](#)

Slide-A-Lyzer Dialysis Flasks

Slide-A-Lyzer Dialysis Flasks are for sample volumes from 150 to 250mL. These devices accomplish typical buffer exchange in 8 to 24 hours and are available in four molecular-weight cutoff (MWCO) varieties: 2K, 3.5K, 10K and 20K.

The flask-style dialysis devices are very easy to use. Add and remove sample 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.

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



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Slide-A-Lyzer Dialysis Cassettes

Slide-A-Lyzer Dialysis Cassettes (original and G2 models) facilitate rapid and trouble-free dialysis for sample volumes from 100µL to 70mL. The cassette design maximizes surface-area per sample-volume ratio and allows excellent sample recoveries. Unlike standard flat tubing, these innovative cassettes 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.

- Original-style Dialysis Cassettes:**
Designed with an inner chamber that is hermetically sealed, allowing the sample to be accessed by inserting a syringe needle through the inlet port.
- 2nd-Generation (G2) Dialysis Cassettes:**

Designed with two additional features: (1) they have needle-accessible ports plus a unique pipette-accessible port, and (2) they are self-floating.

	Original Slide-A-Lyzer Cassettes	G2 Slide-A-Lyzer Cassettes
MWCOs offered	Five (2 to 20K)	Five (2 to 20K)
Sizes offered	Four (0.1 to 30mL)	Five (0.1 to 70mL)
Syringe injection ports	Yes	Yes
Pipette sample port	No	Yes
Self-floating	30mL size only	Yes

Both models of Slide-A-Lyzer Dialysis Cassettes are available in five molecular weight cut-off (MWCO) specifications (2K, 3.5K, 7K, 10K and 20K) for four or five different volume ranges. Selected sizes of 10K MWCO Slide-A-Lyzer Cassettes of each model are also available in packages that have been gamma-irradiated to make them effectively sterile.

Guide to available Slide-A-Lyzer Dialysis Cassettes (SAL and SAL G2 models).
Selecting a link based on desired molecular weight cut-off (MWCO) and cassette size (Sample Volume) opens the product page.

Sample Volume	2K MWCO (Blue)	3.5K MWCO (Pink)	7K MWCO (Green)	10K MWCO (Orange)	20K MWCO (Purple)
0.1 - 0.5mL	SAL	SAL	SAL	SAL	SAL
	SAL G2	SAL G2	SAL G2	SAL G2	SAL G2
0.5 - 3mL	SAL	SAL	SAL	SAL	SAL
	SAL G2	SAL G2	SAL G2	SAL G2	SAL G2
3 - 12mL	SAL	SAL	SAL	SAL	SAL
5 - 15mL	SAL G2	SAL G2		SAL G2	SAL G2
12 - 30mL	SAL	SAL	SAL	SAL	SAL
	SAL G2	SAL G2		SAL G2	SAL G2
30 - 70mL	SAL G2	SAL G2		SAL G2	SAL G2



Dialysis Cassettes



G2 Dialysis Cassettes
(self-floating with pipette port)

Slide-A-Lyzer MINI Dialysis Devices

Slide-A-Lyzer MINI Dialysis Devices are disposable polypropylene cups with integrated, low-binding membranes for convenient, high-performance dialysis of 10µL to 2mL samples. The MINI devices are designed to allow easy sample addition and removal using a standard laboratory pipette. They are effective and convenient for accomplishing typical sample desalting or buffer exchange in 4 to 8 hours. Unlike other small sample separation devices, there is no equipment to assemble, no need for syringe adapters and no laborious steps necessary to manipulate the small volume sample. The regenerated cellulose membrane is compatible with a number of common chemicals and buffers.

Slide-A-Lyzer MINI Dialysis Devices are available in three sizes (0.1, 0.5 and 2mL capacities) with five molecular weight cut-off (MWCO) specifications: 2K, 3.5K, 7K, 10K and 20K.

Slide-A-Lyzer MINI Dialysis Devices — Specific Product Page Links.

2K	3.5K	7K	10K	20K	Floats
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Slide-A-Lyzer MINI Dialysis
Devices and Floats

Pierce 96-well Microdialysis Plates

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

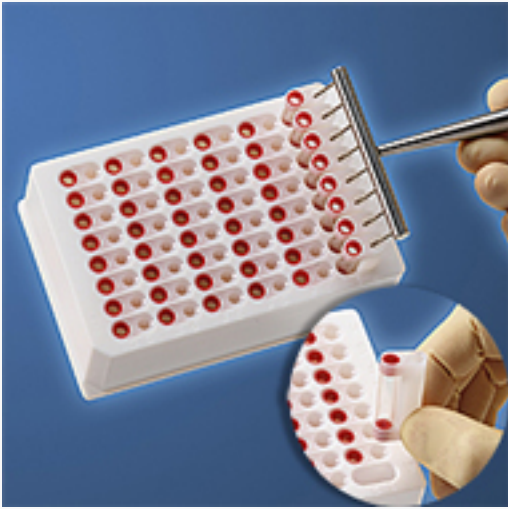
Each sample processed with the Pierce 96-well Microdialysis Dialysis Plate is dialyzed inside a single, removable dialysis device created by two regenerated cellulose membranes separated by ~2mm. The short diffusion distance and large surface area facilitates rapid dialysis with the removal of salts and small molecules often completed in 2 to 4 hours. Sample recovery is performed using standard laboratory micropipettes. Individual microdialysis devices can also be used with 2mL microcentrifuge tubes for processing single samples. The available plate seals are made of high-quality polypropylene and help protect samples from contamination and evaporation, especially during long-term storage.



96-well Microdialysis Plates

RED Device for Rapid Equilibrium Dialysis

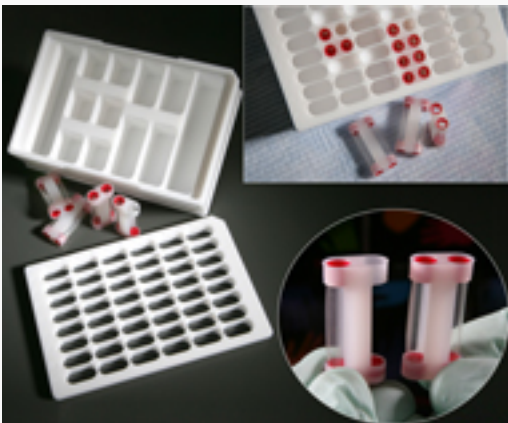
The RED Device for rapid equilibrium dialysis was developed in association with the pharmaceutical industry to accelerate lead optimization and reduce attrition rate. The RED System consists of disposable tube inserts for use with either a reusable PTFE or disposable high-density polypropylene base plates. The unique design of the base plates provides compatibility with automated liquid handling systems while the large dialysis surface area of the tube inserts accelerates equilibrium establishment.



RED Device Rapid Equilibrium
Dialysis System

Competition Rapid Equilibrium Dialysis System

Like the RED Device, the Competition Rapid Equilibrium Dialysis System was developed with accelerated lead optimization as a priority. The Competition RED Device (C-RED) consists of two-chambered disposable tube inserts and a reusable PTFE base plate. Competition equilibrium dialysis is performed within enlarged wells on the base plate that can accommodate 2, 3, 4, or 8 dual chamber inserts providing a defined space for up to 15 samples and 1 open chamber to access the dialysate. The Competition Rapid Equilibrium Dialysis System is also compatible with automated liquid handling systems and has the same high performance as the RED Device.



Competition Rapid Equilibrium
Dialysis System

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