

# SnakeSkin™ Dialysis Tubing

Catalog Numbers 68035, 68100, 68700, 88242, 88243, 88244, 88245

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**WARNING!** Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves. Safety Data Sheets (SDSs) are available from [thermofisher.com/support](https://thermofisher.com/support).

## Product description

The SnakeSkin™ Dialysis Tubing is dialysis membrane tubing that has been pleated into a cylinder format that simplifies dialysis set-up. To use this tubing, simply pull the membrane from the cylinder, cut off the desired length, and it is ready to use. The membrane does not require boiling in borate/EDTA buffer or lengthy prehydration in dialysis buffer. Tubing ends can be closed by knotting or with SnakeSkin™ Dialysis Clips (Cat. No. [68011](#)). Tubing sealed with clips can be suspended in solution by attaching a Slide-A-Lyzer™ Cassette Float Buoy (Cat. No. [66432](#)). Dialysis time and performance with SnakeSkin™ Dialysis Tubing is similar to flat dialysis tubing because it is made from the same type of regenerated cellulose as conventional tubing.

Dialysis enables buffer exchange and low-molecular weight contaminant removal from sample solutions without significant loss of the macromolecule of interest. The method is based on the diffusion of small molecules through a semi-permeable membrane until equilibrium is reached. The molecular weight cut-off (MWCO) of a membrane is a way of expressing the membrane's pore size. A membrane of a given MWCO generally retains 90% of molecules of that size or larger during dialysis. Effective dialysis requires that the compound be significantly (i.e., 5–10 times) smaller than the MWCO. For example, with the 10K MWCO membrane, a 10 kDa protein typically is fully retained in the sample, and salts and small (<2 kDa) peptides dialyze out of the tubing. A 5 kDa peptide, although smaller than the 10K MWCO, is not likely to dialyze to equilibrium, even after 24–48 hours.

The SnakeSkin™ Dialysis Tubing is available in 3 MWCOs and diameters to best suit the sample. The sample volume per centimeter of tubing for each diameter format is listed in Table 2. SnakeSkin™ Dialysis Tubing is supplied in 8-inch (20 cm) cylinders containing 10.7 m of tubing.

For more information and protein dialysis, desalting, and concentration support, go to:

[thermofisher.com/us/en/home/technical-resources/technical-reference-library/protein-purification-isolation-support-center/protein-dialysis-desalting-concentration-support](https://thermofisher.com/us/en/home/technical-resources/technical-reference-library/protein-purification-isolation-support-center/protein-dialysis-desalting-concentration-support)

## Contents and storage

Component Size	Membrane Molecular Weight Cut-Off			Storage
	3.5K MWCO	7K MWCO	10K MWCO	
35 mm dry diameter (ID) x 10.7 m	<a href="#">88244</a>	—	<a href="#">88245</a>	Room temperature [1,2]
22 mm dry diameter (ID) x 10.7 m	<a href="#">68035</a>	<a href="#">68700</a>	<a href="#">68100</a>	
16 mm dry diameter (ID) x 10.7 m	<a href="#">88242</a>	—	<a href="#">88243</a>	

[1] Keep in closed original packaging tube to prevent desiccation, which results in cracks or pinholes in the membrane.

[2] For best results, keep membrane hydrated by occasionally adding 1–2 drops of distilled water to the packaging tube.

## Dialyze samples

**Note:** Wear gloves when handling the SnakeSkin™ Dialysis Tubing to avoid sample contamination.

### Use tubing clips as the closure system

**Note:** This method requires the SnakeSkin™ Dialysis Clips (Cat. No. [68011](#)) and the Slide-A-Lyzer™ Cassette Float Buoy (Cat. No. [66432](#)).

1. Pull out the required length of membrane from the packaging tube with an extra approximately 1 inch (2.54 cm) for tube closure. See the volume capacity information (Table 2). Cleanly cut tubing at a 90° angle using scissors.
2. Twice fold over approximately 0.25 inch of the dry tubing on one end (for 35 mm membranes, first diagonally fold in the corners).
3. Apply the tubing clip and securely snap the clip closed.
4. Add the sample into the open end, being careful to properly support and secure the tubing.
5. Fasten another clip to the other end of the membrane tubing as described in step 2 to step 3.
6. Inspect the seals to ensure the ends are secured properly and no leakage is occurring.
7. Securely insert the clip into the buoy.
8. Using an appropriately sized container, float the filled dialysis tubing in the desired dialysis buffer.
9. Dialyze the sample for the appropriate time to reach equilibrium (typically 4–8 hours). Exchange the external dialysis buffer 2 or more times. Use a total dialysis buffer of at least 300 times the volume of the sample during the dialysis procedure. If desired, the dialysis buffer can be stirred or temperature-controlled throughout the process.

### Use knots as the closure system

1. Pull out the required length of membrane from the packaging tube with an extra 1–2 inches (2.54 cm) for tube closure. See the volume capacity information (Table 2). Cleanly cut tubing at a 90° angle using scissors.
2. Briefly dip (<5 seconds) 2–3 inches of one end of the tubing into water or dialysis buffer. Securely tie a knot in the wetted end of the tubing and pull tightly.
3. Add the sample into the open end, being careful to properly support and secure the tubing.
4. Securely tie a knot in the open end of the tubing.
5. Using an appropriately sized container, float or securely suspend the filled dialysis tubing in the desired dialysis buffer.
6. Dialyze the sample for the appropriate time to reach equilibrium (typically 4–8 hours). Exchange the external dialysis buffer 2 or more times. Use a total dialysis buffer of at least 300 times the volume of the sample during the dialysis procedure. If desired, the dialysis buffer can be stirred or temperature-controlled throughout the process.

## Additional information

**Table 1** Dialysis tubing specifications.

Membrane <sup>[1]</sup> MWCO	Membrane thickness
3.5K	25 µm
7K	30 µm
10K	23 µm

<sup>[1]</sup> Membrane type: Regenerated cellulose.

Table 2 Dialysis tubing sample capacity.

Tubing diameter	Approximate volume <sup>[1]</sup>
16 mm	2.0 mL/cm of tubing
22 mm	3.8 mL/cm of tubing
35 mm	9.6 mL/cm of tubing

<sup>[1]</sup> Excludes membrane length used for tube closure.

Related products

- Slide-A-Lyzer™ G3 Dialysis Cassettes  
([thermofisher.com/us/en/home/life-science/protein-biology/protein-purification-isolation/protein-dialysis-desalting-concentration/dialysis-products/slide-a-lyzer-dialysis-cassettes](https://thermofisher.com/us/en/home/life-science/protein-biology/protein-purification-isolation/protein-dialysis-desalting-concentration/dialysis-products/slide-a-lyzer-dialysis-cassettes))
- Slide-A-Lyzer™ Cassettes, Mini Devices, and Flasks  
([thermofisher.com/us/en/home/life-science/protein-biology/protein-purification-isolation/protein-dialysis-desalting-concentration/dialysis-products](https://thermofisher.com/us/en/home/life-science/protein-biology/protein-purification-isolation/protein-dialysis-desalting-concentration/dialysis-products))
- Zeba™ Spin Desalting Columns  
([thermofisher.com/us/en/home/life-science/protein-biology/protein-purification-isolation/protein-dialysis-desalting-concentration/zeba-desalting-products/zeba-spin-desalting-columns](https://thermofisher.com/us/en/home/life-science/protein-biology/protein-purification-isolation/protein-dialysis-desalting-concentration/zeba-desalting-products/zeba-spin-desalting-columns))
- Pierce™ Protein Concentrators  
([thermofisher.com/us/en/home/life-science/protein-biology/protein-purification-isolation/protein-dialysis-desalting-concentration/protein-concentrators](https://thermofisher.com/us/en/home/life-science/protein-biology/protein-purification-isolation/protein-dialysis-desalting-concentration/protein-concentrators))
- Pierce™ Biotin and Dye Removal Spin Columns  
([thermofisher.com/us/en/home/life-science/protein-biology/protein-purification-isolation/protein-dialysis-desalting-concentration/small-molecule-removal](https://thermofisher.com/us/en/home/life-science/protein-biology/protein-purification-isolation/protein-dialysis-desalting-concentration/small-molecule-removal))
- Protease and Phosphatase Inhibitor Cocktails and Tablets  
([thermofisher.com/search/browse/category/us/en/90223020](https://thermofisher.com/search/browse/category/us/en/90223020))
- Pierce™ Microdialysis Plates  
([thermofisher.com/us/en/home/life-science/protein-biology/protein-purification-isolation/protein-dialysis-desalting-concentration/dialysis-products/microdialysis](https://thermofisher.com/us/en/home/life-science/protein-biology/protein-purification-isolation/protein-dialysis-desalting-concentration/dialysis-products/microdialysis))

Limited product warranty

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Thermo Fisher Scientific | 3747 N. Meridian Road | Rockford, Illinois 61101 USA

For descriptions of symbols on product labels or product documents, go to [thermofisher.com/symbols-definition](https://thermofisher.com/symbols-definition).

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Revision	Date	Description
B.0	8 June 2023	The format and content were updated.
A.0	17 October 2015	New document for the SnakeSkin™ Dialysis Tubing.

The information in this guide is subject to change without notice.

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