

DiaEasy™ Dialyzer 96-Well Format (12-14 kDa)

04/21

(Catalog # K1024-96; One 96-well formatted dialyzer (12-14 kDa); Store at RT)

I. Introduction:

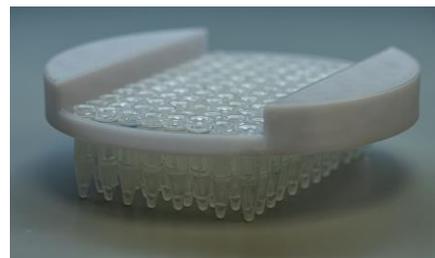
Biovision's DiaEasy™ Dialyzer 96-Well Format, (12-14 kDa) is comprised of high performance dialysis tubes that allow rapid and clean dialysis of protein and nucleic acid samples with a 12-14 kDa molecular weight cut off. The DiaEasy™ tube's membrane is ultra-clean, sulfur and heavy metal free and EDTA-treated which makes it suitable for molecular biology experiments. These tubes are autoclaved and are free of bacteria. The DiaEasy™ tubes allow rapid, secure and simple loading and recovery. The sample quality after dialysis can be checked by several assays commonly used for proteins and nucleic acids. The included 96-well format floating rack accommodates multi-channel pipetting for the dialysis of up to 96 samples per rack, with the ability to mix-and-match molecular weight cutoffs, if desired, with DiaEasy™ Dialyzer tubes of 250 µl volume for simultaneous dialysis in a convenient format.

II. Applications:

- High throughput dialysis or buffer exchange of volumes between 10-250 µl.
- Sample concentration

III. Kit Contents:

Components	K1023-96	Part Number
DiaEasy™ Dialyzer Tubes With Caps	96	K1024-96-1
DiaEasy™ Dialyzer 96-Well Format Floating Rack	1	K1024-96-2
Aluminum Foil Adhesive Sealer	1	K1024-96-3



IV. User Supplied Reagents and Equipment:

- Beakers (or container of suitable size to accommodate 96-well format floating rack)
- Desired buffers
- Multi-channel pipettor(s)

V. Storage and Handling:

Store all components of the kit in a dry place at room temperature (RT). Read the entire protocol before performing the experiment.

VI. Dialysis by DiaEasy™ Dialyzer Tubes:

Procedure:

- Open the nylon pouch containing the DiaEasy™ Dialyzer Tubes With Caps. Ensure that all tubes are held securely in the 96-well floating rack.
- Fill the DiaEasy™ Dialyzer tubes with 250 µl of sterile deionized water using a multi-channel pipettor. To avoid the formation of bubbles during filling, insert the tips to the bottom of the tubes and slowly draw up as the liquid is dispensed into the tubes.
- Incubate the tubes for at least 5 minutes. Empty the tubes. **IMPORTANT:** Carefully check that no water is leaking from the tube. Water absorption by the dry membrane will decrease the apparent water level.
- Load sample into the DiaEasy™ Dialyzer tubes. The tubes may be covered simultaneously using the provided aluminum foil adhesive sealer, or tubes can be closed individually with the provided caps (do not apply force). **IMPORTANT:** Sample volume should be in the range of 10-250 µl. If small volume is used (e.g., 10 µl), load the sample close to the inner membrane.



Figure 2: Filling the DiaEasy™ Dialyzer Tubes in 96-well format with a multi-channel pipettor.



Figure 3: Sealing the DiaEasy™ Dialyzer tubes in 96-well format with the included aluminum foil adhesive sealer. Ensure that the rim of each tube is in contact with the sealer.

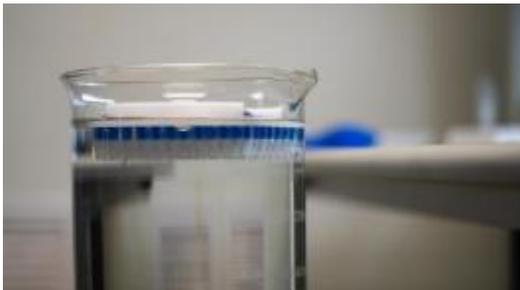


Figure 4: Dialysis with the DiaEasy™ Dialyzer in 96-Well Format.

- Place the loaded DiaEasy™ Dialyzer Tubes in the supplied 96-well format floating rack in a container with a sufficiently large volume (usually 100 to 1000-fold that of the sample) of the desired buffer. The floating rack can hold up to 96 DiaEasy™ Dialyzer tubes. Add a stir bar to the bottom of the container and adjust the stir bar speed. The recommended time for equilibration is four hours. **IMPORTANT:** User must determine exact equilibration times for the dialysis.
- Change the dialysis buffer as necessary.
- When equilibration is completed, remove the aluminum foil adhesive sealer.
- Pipette out the sample carefully from the DiaEasy™ Dialyzer tubes to the corresponding wells of a clean 96-well plate.
- If sample volume has increased during dialysis, let your sample evaporate on the bench top (a fan increasing airflow across the membrane will speed up the process), check every 10 min or less to prevent full evaporation and dryness.

VII. Sample concentration by evaporation with DiaEasy™ Dialyzer Tubes: DiaEasy™ Dialyzer tubes are ideally suited for sample concentration via evaporation because of their dual membranes and large surface area. Dialysis and concentration in the same device reduces protein loss. Unlike closed-system centrifuge-type devices, sample concentration can be easily monitored in the DiaEasy™ Dialysis Tubes.

Procedure:

- Place the sample in the DiaEasy™ Dialyzer Tubes or use already dialyzed sample and place it on the microtube rack stand.
- Let the samples evaporate on the bench top (using fan to increase airflow across the membrane speed up evaporation process), making sure to check every 10 min or less to prevent full evaporation to dryness. When evaporating water from samples, small molecules (buffer salts, reducing agents, etc.) will also get concentrated.

VIII. Related Products

- DiaEasy™ Dialyzer (250 µl) Floating Racks (Cat. No. 1020)
- DiaEasy™ Dialyzer (250 µl) MWCO 6-8 kDa (Cat. No. K1020)
- DiaEasy™ Dialyzer (250 µl) MWCO 12-14 kDa (Cat. No. K1021)
- DiaEasy™ Dialyzer (250 µl) MWCO 25 kDa (Cat. No. K1022)
- DiaEasy™ Dialyzer (250 µl) Supporting Trays (Cat. No. 1028)

FOR RESEARCH USE ONLY! Not to be used on humans.