

atic ribonuclease A (RNase A; pI 9.4). Stock solutions of each protein were prepared in phosphate buffer (100 mM NaCl, 50 mM sodium phosphate, pH 8.0) at concentrations ranging from 35 to 70 µg/ml. We selected these concentrations based on the lower sensitivity limit of the BCA assay, to ensure accurate and reliable measurements even in the event of substantial protein loss after dialysis.

For each test protein, we performed four independent dialysis experiments (see Figure 2). Four 2 ml samples of protein stock were added to D-Tube™ Dialyzer Maxi units (MWCO 3.5 kDa; Cat. No. 71508-3), which were closed with the 2-ml caps. The D-Tube devices were assembled in a floating rack and placed in a beaker containing 1 L phosphate buffer at the same ionic strength used for protein stock preparation. Di-

alysis was performed overnight at 4°C with gentle stirring. Concentrations of pre-dialysis protein stock solutions and dialyzed samples were measured using the BCA Protein Assay Kit (Cat. No. 71285-3). All measurements were performed in quadruplicate.

Results and Discussion

Figure 2 shows protein concentrations of the solutions before and after dialysis. Even at the relatively low protein concentrations tested (35–70 µg/ml), no significant protein loss occurred. This demonstrates that, over a range of net protein charge, protein binding by the plastic of the D-Tube Dialyzer Devices is insignificant. Since the ratio of plastic surface area to sample volume is smaller for the D-Tube Mega Dialyzer devices, this conclusion is valid for larger-volume dialysis applications as

well. D-Tube Dialyzers are thus suitable for sensitive applications demanding quantitative protein recovery after dialysis. ■

Product	MWCO	Sample Volume	Cat. No.	Price
D-Tube™ Dialyzer Mini	6–8 kDa	10–250 µl	71504-3	
D-Tube™ Dialyzer Mini	12–14 kDa	10–250 µl	71505-3	
D-Tube™ Dialyzer Midi	3.5 kDa	50–800 µl	71506-3	
D-Tube™ Dialyzer Midi	6–8 kDa	50–800 µl	71507-3	
D-Tube™ Dialyzer Maxi	3.5 kDa	0.5–3 ml	71508-3	
D-Tube™ Dialyzer Maxi	6–8 kDa	0.5–3 ml	71509-3	
D-Tube™ Dialyzer Maxi	12–14 kDa	0.5–3 ml	71510-3	
D-Tube96™ Dialyzer	6–8 kDa	10–250 µl	71712-3	
D-Tube96™ Dialyzer	12–14 kDa	10–250 µl	71713-3	
D-Tube™ Electroelution Accessory Kit			71511-3	

NEW D-Tube™ Dialyzer Mega Kits

- Efficient dialysis of 10-, 15- and 20-ml samples
- Large dual membrane surface with MWCOs of 3.5 or 6–8 kDa
- High sample recovery >97%
- Protease-, RNase-, and DNase-free
- Convenient sample loading – no syringes necessary
- Versatile – dialyze proteins, RNA, and DNA
- Ideally suited for buffer exchange prior to refolding with the iFOLD™ Protein Refolding System 1

Product	MWCO	Cat. No.	Quantity	Price
NEW D-Tube™ Dialyzer Mega, 10 ml	3.5 kDa	71739-3	10 tubes	
	6–8 kDa	71739-4	50 tubes	
NEW D-Tube™ Dialyzer Mega, 15 ml	3.5 kDa	71742-3	10 tubes	
	6–8 kDa	71742-4	50 tubes	
NEW D-Tube™ Dialyzer Mega, 20 ml	3.5 kDa	71743-3	10 tubes	
	6–8 kDa	71743-4	50 tubes	
D-Tube™ Dialyzer Mega, 20 ml	3.5 kDa	71745-3	10 tubes	
	6–8 kDa	71745-4	50 tubes	
D-Tube™ Dialyzer Mega, 20 ml	3.5 kDa	71746-3	10 tubes	
	6–8 kDa	71746-4	50 tubes	
Floating Rack, Mega		71748-3	10 racks	



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