

# Fast and Easy Sample Dialysis

When downstream quality matters,  
make sure your upstream tools are the best



# Fast and Easy Sample Dialysis for Buffer Exchange, Sample Desalting or Sample Concentration

Each sample is unique. Give it the special treatment it deserves with a perfectly designed dialysis device. Choose the right device from Merck Millipore's portfolio of sample dialysis tools, featuring the Amicon® Ultra line of centrifugal filters and D-Tube™ Dialyzers.

- Amicon Ultra centrifugal filters give you the fastest, most efficient concentration for most sensitive downstream applications
- D-Tube Dialyzers give you a gentle way to concentrate intractable or sensitive samples and prevent them from precipitation or over-concentration



## Why Choose D-Tube Dialyzers?

### Recover >89% of your sample

- Low binding membrane and housing
- Rigid frame permits smooth sample withdrawal of submilliliter volumes – removing every last drop is easy

### Be confident in a reliable device

- Secure design prevents sample loss due to leaks – no knots or clamps to loosen
- Sample volume remains visible throughout dialysis

### Handle samples with convenience

- No need to use a syringe to load or remove samples. Simply load your sample with a standard pipette tip
- D-Tubes can also be used to electroelute samples from agarose or acrylamide

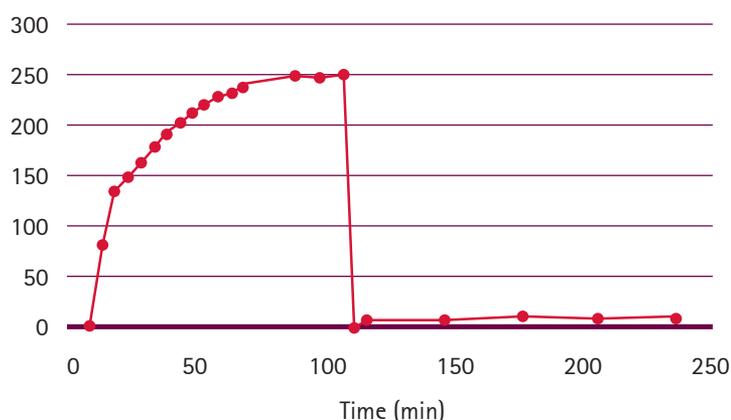
### Easy to use

- Easy to open and close with a screw cap

### Be efficient

- Design of the device spreads the sample over a large surface area and the double membrane promotes fast dialysis in 2 to 5 hours

Conductivity vs. Time



**D-Tube Dialyzers provide gentle, efficient desalting and excellent protein recovery.** A bovine serum albumin (BSA) solution in 2M NaCl was dialyzed against water while water conductivity was monitored. After 100 minutes, conductivity of the water stopped increasing, and it was replaced with fresh water. After 5 hours, 89% of the protein was recovered, and 99.9% of the salt had been removed.

#### Experimental Conditions:

Device: D-Tube Dialyzer Midi 6.5kDa MWCO

Sample: BSA 5 mg/mL in 2M NaCl

Volume: 0.5 mL

Exchange buffer volume: 500 mL Milli-Q® water

Conductivity standard curve using NaCl

Protein recovery after 5 hours: 89%

Volume recovery after 5 hours: 115%

Sample conductivity before dialysis: 149 mS/cm/2 M NaCl

Sample conductivity after dialysis: 182 μS/cm/1.6 mM NaCl

99.9% salt reduction

## Easy to Choose

What is the starting volume of your solution?

What is the molecular weight of your molecule of interest?

Answer these questions, and you're ready to choose a D-Tube Dialyzer with the right molecular weight cutoff (MWCO).

Just use the table below.

	D-Tube Mini	D-Tube Midi	D-Tube Maxi	D-Tube Mega	D-Tube Mega	D-Tube Mega
Starting Volume	10 to 250 $\mu$ L	50 to 800 $\mu$ L	100 $\mu$ L to 3 mL	3 to 10 mL	10 to 15 mL	15 to 20 mL
Floating Rack needed	Mini	Midi	Maxi	Mega	Mega	Mega

Proteins/DNA/ RNA/ Oligonucleotides	Molecular Weight Cutoff (MWCO) of D-Tube Dialyzers					
MOLECULAR WEIGHT (MW)	MW<7 k	3,500	3,500	3,500	3,500	3,500
	7<MW<24 k	6,000-8,000	6,000-8,000	6,000-8,000	6,000-8,000	6,000-8,000
	24<MW<28 k	12,000-14,000	12,000-14,000			

## Easy to Use

1. Fill with Milli-Q water and equilibrate for 10 minutes
2. Remove water and weigh dialysis device
3. Add the sample, record weight
4. Insert dialyzer into floating rack and place into beaker containing exchange buffer and stir bar
5. Place beaker on stir plate and monitor conductivity over time
6. Once conductivity stops increasing, change buffer and repeat one more time
7. Remove dialyzer from beaker, dry and determine weight



Product	D-Tube Mini	D-Tube Midi	D-Tube Maxi	D-Tube Mega	D-Tube Mega	D-Tube Mega
Maximum initial sample volume	10 to 250 µL	50 to 800 µL	100 µL to 3 mL	3 to 10 mL	10 to 15 mL	15 to 20 mL
MWCO	Qty/Pk					
3,500	10	71506-3	71508-3	71739-3	71742-3	71745-3
	50			71739-4	71742-4	71745-4
6,000-8,000	10	71504-3	71507-3	71509-3	71740-3	71743-3
	50				71740-4	71743-4
	1 plate of 96	71712-3				
12,000-14,000	10	71505-3		71510-3		
	50					
	1 plate of 96	71713-3				

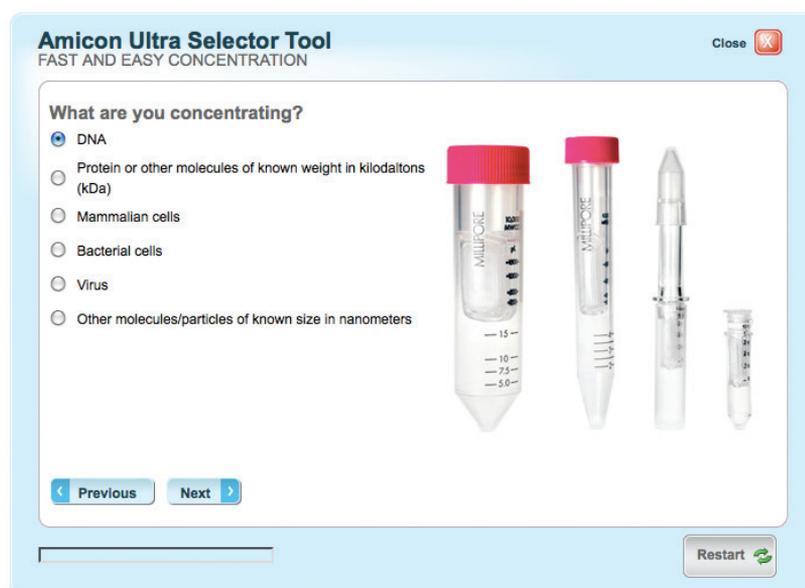
  

Floating Rack	Product	Mini	Midi	Maxi	Mega	Mega	Mega
	Qty/Pk						
	10	71512-3	71513-3	71514-3	71748-3	71748-3	71748-3

## Easy to Choose!

Find the right filter to concentrate your sample -- search with our NEW online Amicon Ultra Selector Tool.

Visit: [www.millipore.com/FastEasy](http://www.millipore.com/FastEasy)



### To place an order or for Customer Service

In Europe, please call:  
 France: 0800 699 620  
 Germany: 0800 6931 000  
 Italy: 00800 1166 8811  
 Spain: 00800 1166 8811  
 United Kingdom: 0800 622 935

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