



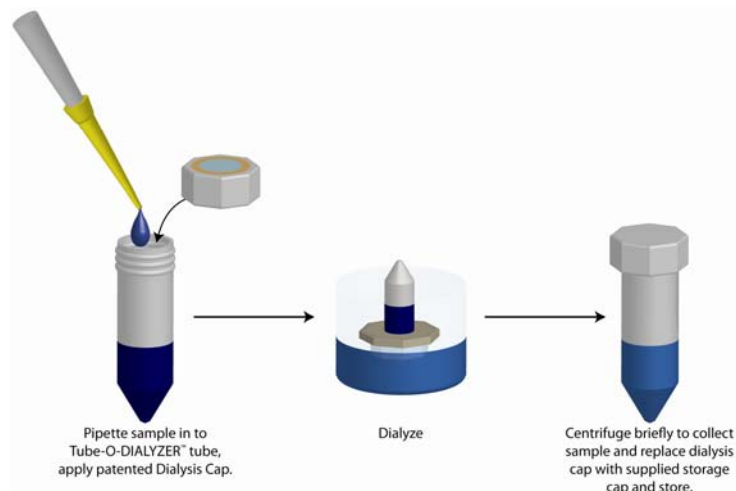
Tube-O-DIALYZER™

No Loss Dialyzer for Small Samples

INTRODUCTION

Tube-O-DIALYZER™ is a mini dialysis system for small sample volumes (20µl-2.5ml) that ensures 100% sample recovery, even if precipitation occurs. Tube-O-DIALYZER™ is based on a tube design that permits easy sample handling and a patented dialysis cap. Simply pipette your sample into the Tube-O-DIALYZER™ tube, seal with the Tube-O-DIALYZER™ dialysis cap and invert in your dialysis solution and dialyze. Following dialysis, briefly centrifuge the complete Tube-O-DIALYZER™ for five seconds and collect 100% of your sample, any precipitated sample will be centrifuged to the bottom of the tube and can be redissolved. For storage of the dialyzed sample, replace the dialysis cap with the supplied storage caps.

Tube-O-DIALYZER™ is supplied with regenerated cellulose dialysis membrane, a neutral non binding dialysis membrane, with Molecular Weight Cut Offs (MWCO) of 1,000, 4,000, 8,000, 15,000, and 50,000 Daltons.



ITEMS SUPPLIED

	Tube-O-DIALYZER™, Micro For 20-250µl Samples				
Cat. #	786-610	786-611	786-612	786-613	786-614
MWCO (Da)	1,000	4,000	8,000	15,000	50,000
Tube-O-DIALYZER™, Micro	20	20	20	20	20
Floats (Micro)	6	6	6	6	6
Caps (Micro)	20	20	20	20	20
Forceps	1	1	1	1	1

	Tube-O-DIALYZER™, Medi For 0.2-2.5ml Samples				
Cat. #	786-615	786-616	786-617	786-618	786-619
MWCO (Da)	1,000	4,000	8,000	15,000	50,000
Tube-O-DIALYZER™, Medi	20	20	20	20	20
Floats (Medi)	6	6	6	6	6
Caps (Medi)	20	20	20	20	20
Forceps	1	1	1	1	1



	Tube-O-DIALYZER™, Mixed For 0.2-2.5ml Samples				
Cat. #	786-620	786-621	786-622	786-623	786-624
MWCO (Da)	1,000	4,000	8,000	15,000	50,000
Tube-O-DIALYZER™, Micro	10	10	10	10	10
Tube-O-DIALYZER™, Medi	10	10	10	10	10
Floats (Micro)	3	3	3	3	3
Floats (Medi)	3	3	3	3	3
Caps (Micro)	10	10	10	10	10
Caps (Medi)	10	10	10	10	10
Forceps	1	1	1	1	1

STORAGE

The kit is shipped at ambient temperature. Upon arrival, store it at 4°C and is stable for 1 year.

ITEMS SUPPLIED SEPARATELY

- **Centrifuge Tube Adaptor [Cat # 786-145]** Optional adaptor for centrifugation in bench top centrifuges. Pack of 2.
- **Concentrator [Cat # 786-144]** For the rapid concentration of sample with Tube-O-DIALYZER™. 150g.
- **Micro Dialysis Cups [Cat # 786-145C]** For dialysis of small sample volumes, equilibrium dialysis, dialysis of single use preparations, and other dialysis applications. Dialysis buffer capacity of 2-10ml.
- **Tube-O-Tanks [Cat # 786-145D & 786-145E]** – A dialysis tank specifically designed for use with Tube-O-DIALYZER™. Two sizes are available, small and large tanks, suitable for Micro and Medi size Tube-O-DIALYZER™, respectively. Each tank will accommodate seven Tube-O-DIALYZER™.
- **Tube-O-Array™ Dialyzer [Cat # 786-145A]** – Specifically developed for dialysis-equilibration of samples prior to 2D-gel analysis or other applications. Optimize up to 12 samples at a time. Consists of a tray for holding up to 12 Tube-O-DIALYZER™ assemblies. Suitable for 20µl to 2.5ml samples each.
- **Floats** – Additional Tube-O-DIALYZER floats, both Micro [Cat # 786-141F] and Medi [Cat # 786-142F] sizes are also available separately.

PREPARATION BEFORE USE

- Tube-O-DIALYZER™ are supplied in a preservative to maintain quality. Prior to use discard the preservative from the tube and place the dialysis cap upside down in a beaker or other suitable container and add 1-2ml DI water or dialysis buffer to rinse. Keep the Tube-O-DIALYZER™ membrane wet until required. If the white gasket comes loose, simply reposition with supplied forceps.
- Tube-O-DIALYZER™ is made of a neutral and no binding membrane, however for dilute protein solutions we recommend, washing the Tube-O-DIALYZER™ dialysis cap in a 5% BSA solution to block any non-specific binding. Washing the dialysis cap 3-5 times afterward to remove free BSA.

INSTRUCTIONS FOR USE

- Pipette your sample directly into the Tube-O-DIALYZER™ tube. For Tube-O-DIALYZER™ Micro use 20-250µl and for Tube-O-DIALYZER™ Medi use 0.2-2.5ml.
- Remove the Tube-O-DIALYZER™ dialysis cap from the rinse water/buffer and carefully remove excess liquid with a pipette tip.
- Screw the dialysis cap on to the Tube-O-DIALYZER™ tube until hand tight. Invert the Tube-O-DIALYZER™, ensuring the entire sample rests upon the membrane.
NOTE: If sample is too viscous, centrifuge the Tube-O-DIALYZER™ in an inverted position (i.e. the dialysis membrane facing downward). We recommend inverting the Tube-O-DIALYZER™ in the Tube-O-DIALYZER™ centrifuge adaptor (Cat. # 786-145) or a 50ml centrifuge tube and centrifuging for 5 seconds at 500-1,000g. Do not spin longer as this may cause the membrane to rupture.
- Keeping the Tube-O-DIALYZER™ in an inverted position, slide the supplied float onto the Tube-O-DIALYZER™ tube. Place the Tube-O-DIALYZER™ in the dialysis buffer. The remaining floats can be added to the dialysis buffer additional stability and prevent the tube flipping during dialysis.
NOTE: Tube-O-Tanks (Cat # 786-145D & 786-145E) allow trouble free dialysis and prevent the risks of the

Tube-O-DIALYZER™ flipping during dialysis.

5. Ensure that the dialysis membrane contacts the dialysis buffer. If there are large air bubbles trapped underneath the dialysis membrane surface, tilt the tube or squirt buffer to remove the air bubbles. Gently, stir the dialysis buffer. For efficient and complete dialysis we recommend inverting or gently tapping the Tube-O-DIALYZER™ 1-2 times during dialysis to mix the sample. If necessary repeat the centrifugation in step 3.
6. *Dialysis Time:* Dialysis time will depend on the nature of sample, MWCO of the Tube-O-DIALYZER™, sample and dialysis buffer volume and concentration. Higher MWCO will allow faster dialysis. As a guide, the sample should be dialyzed for 2-12 h. Dialysis buffer should also be replaced at least once during dialysis.
7. After dialysis, remove the Tube-O-DIALYZER™ from the float and immediately spin the Tube-O-DIALYZER™ (in up-right position) for 5-6 seconds at 500-1,000xg.
NOTE: Do not spin longer as this may cause the membrane to rupture.
8. Discard the dialysis cap and replace with the supplied storage cap.

APPLICATION NOTES

Concentration of Samples: For rapid concentration of samples using a Tube-O-DIALYZER™, we offer a specific Concentrator (Cat # 786-144, supplied separately). The concentrator is a high molecular weight polymer that will not migrate across the dialysis membrane. When the Concentrator is placed against the dialysis membrane of the Tube-O-DIALYZER™, it rapidly absorbs water from the sample and reduces the sample volume.

For concentration, transfer 5-8 gm Concentrator into the container supplied. Using a clean tissue paper, remove all free solution from the cap of the Tube-O-DIALYZER™. Invert and bury the Tube-O-DIALYZER™ cap into the Concentrator. Make sure that the concentrator contacts the dialysis membrane. Incubate until desired concentration is reached. The concentration can be accelerated by removing the Tube-O-DIALYZER™ from the concentrator every 40-50 min and then removing the wet concentrator from in front of the dialysis membrane. Squirt water to remove the concentrator, afterward, remove all free water from the Tube-O-DIALYZER™ before inverting and burying the Tube-O-DIALYZER™ back into the concentrator.

Reusing Tube-O-DIALYZER™: Tube-O-DIALYZER™ is not recommended for re-use because of obvious reason of cross contamination.

RELATED PRODUCTS

1. **Tube-O-Array Dialyzer™** A high throughput method for sample preparation and optimization specifically developed for dialysis-equilibration of samples prior to 2D-gel analysis or other applications. Optimize up to 12 samples at a time. Consists of a tray for holding up to 12 Tube-O-DIALYZER™ assemblies. Transfer sample into a Tube-O-DIALYZER™ and position into the micro dialysis cup containing as little as 2ml dialysis or equilibration buffer. Stirring of the dialysis buffer is achieved by placing 5-6 stirring balls in each micro-dialyzer cups.
2. **MegaLong™ DNA Isolation kit (Cat # 786-146/7)** – For isolation of high molecular weight (>100Kb) genomic DNA, involves use of a Tube-O-DIALYZER™ containing 0.45micron pore size membrane. Transfer nuclei into a Tube-O-DIALYZER™. When dialysis is complete, you have a fully hydrated, purified high molecular weight genomic DNA in the Tube-O-DIALYZER™.