

Preparation of Dialysis Tubing

Note: each kind of dialysis tubing has a molecular weight cut-off.

Be sure you are using the correct one.

For DNA, I normally use a MWCO of 12-14,000

For protein, it depends on the size of protein you want to purify.

For PC, cyt c, I use a MWCO of 3,000.

Cut a length of dialysis tubing (1 meter).

Curl it up into a 1 liter Erlenmeyer flask (better) or beaker containing about 300-500 ml of H₂O with a swig of 0.5 M EDTA (pH = 8.0). Cover with saran wrap. Microwave it until it boils. Make sure that the dialysis membrane is completely immersed in the liquid at all times—otherwise it gets crisp and dry and will tear. Let it boil for 5-10 minutes with occasional swirling. (Wear a mitt otherwise your hands will burn!)

Rinse with milliQ H₂O several times.

Store in a wide mouth bottle in a dilute EDTA solution (5 mM) in the refrigerator.

Label it with the date, initials and the MWCO.

When you need to use it, cut off the desired length and rinse it with milliQ H₂O before putting your sample in it.

Clamp one end with a dialysis clamp and fill the tube and clamp the other end.

If the tubing does not float in the dialysis beaker, you can use an empty eppendorf tube clipped onto one or both ends of the tubing as a “floater.”

Be sure to label all the samples. They can all be put into one beaker if they are properly labeled. I often label the eppendorf tube.