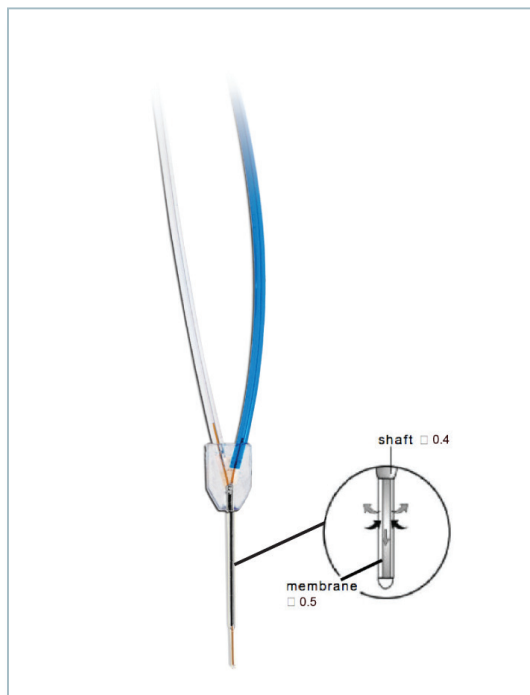


CMA 8 High Cut-Off Microdialysis Probe User's Manual



TECHNICAL INFORMATION

Membrane

Material	Polyethersulfone (PES)
Molecular Cut-Off	100,000 Daltons
Outer Diameter	0.5 mm
Length	1 and 2 mm

Probe Shaft

Material	Stainless-steel
Diameter	0.4 mm
Length	7 mm

Internal Volume

Inlet Volume	Negligible
Outlet Volume	0.3 μ L
200 mm Inlet tubing (blue)	3.6 μ L
200 mm Outlet tubing (transparent)	3.6 μ L

Instructions for CMA 8 High Cut-Off Microdialysis Probe

1. Fill a microsyringe with perfusion fluid and mount it in the CMA Syringe Pump. The Perfusion Fluid must be clean, at room temperature and preferably degassed.
2. Run the pump to make sure that liquid leaves the tip of the syringe cannula.
3. Connect a Tubing Adapter to the blue inlet tubing of the Microdialysis probe and connect it to the syringe cannula by sliding the Tubing Adapter over the cannula. Don't add longer outlet tubing **than necessary to avoid ultrafiltration. No longer than 500 mm. Inlet tubing = blue, outlet tubing = transparent. To facilitate the handling of Tubing Adapters, they should be soaked in Ethanol for minimum 10 minutes.**
4. Attach the Microdialysis probe to a CMA 7 & 8 Probe/Guide Clip on the CMA 130 *in vitro* Stand. Remove the protection tube carefully. Put the probe membrane into a vial filled with perfusion fluid.
5. Connect the inlet tubing of the microdialysis probe to the syringe cannula, by sliding the Tubing Adapter over the cannula. Wait for 10 minutes. The Tubing Adapter must be dry before flushing.
6. Flush the probe with perfusion fluid at 8-10 μ L/min for 3-4 min to wash out air. When flushing, the membrane may appear to be "sweating" which is due to ultrafiltration of fluid through the membrane. Knock on the shaft of the clip to help flush out the air. Lift up the clip with the probe from the vial and check for air bubbles inside the membrane with a microscope. Air bubbles occur as white spots.
7. Set the pump to the required perfusion flow, usually 1-2 μ L/min and check for leaks. **Keep pump, probe and tubing at the same level on the bench to prevent ultrafiltration.** If the membrane still sweats it might still be air inside the probe. Repeat step 6. It might helpful to change flow direction in the probe by connecting the inlet tubing to the outlet on the probe for a minute. Adding Dextran 70, 30g/1000 mL, to the perfusion fluid can help to prevent ultrafiltration.
8. When the membrane is not sweating the system with the probe is ready for use.
9. During the experiment remember to check the fluid volume in the vials to be as calculated. **If a higher flow rate than 1-2 μ L/min is required it is recommended to use a push-pull system to avoid ultrafiltration.**
10. When changing sample vials, remember to consider the internal volume in the system (see TECHNICAL INFORMATION). This causes a delay that must be calculated when using low perfusion rates and short sampling times.
11. After the experiment, put the microdialysis probe in a vial filled with deionized water. Perfuse with deionized water to prevent salt crystal formation. The probe can be stored in deionized water.

ORDER INFORMATION	Ref No.
CMA 8 High Cut-Off Microdialysis Probe, 1 mm, 3/pkg	CMA 8012301
CMA 8 High Cut-Off Microdialysis Probe, 2 mm, 3/pkg	CMA 8012302
CMA 8 Guide Cannula, 3/pkg	CMA 8012310
CMA 8 Guide Cannula, 30/pkg	CMA 8012311
Tubing Adapter, 10/pkg	CMA 3409500
FEP Tubing, 1 m, 1/pkg	CMA 3409501
FEP Tubing, 1 m, 10/pkg	CMA 8409501
Tubing Connector, 3/pkg	CMA P000113
CMA 7 & 8 Probe Clip	CMA P000136

WARRANTY

The probes manufactured by CMA Microdialysis are warranted to be free from defects in material and workmanship for a period of two years from the manufacturing date if stored in the original package. Claims should be forwarded without delay to CMA Microdialysis or to your local distributor.

The CMA 8 High Cut-Off Microdialysis Probe is not intended for use in humans. It is only suitable for laboratory research in animals. CMA Microdialysis only guarantees single usage of CMA 8 Microdialysis Probes.



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