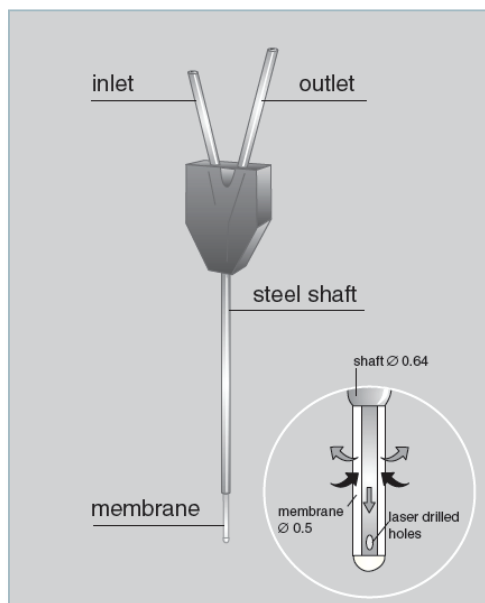


## CMA 12 Elite Microdialysis Probe User's Manual



### TECHNICAL INFORMATION

#### Membrane

Material	Polyarylethersulfone (PAES)
Molecular Cut-Off	20,000 Daltons
Outer Diameter	0.5 mm
Length	1, 2, 3 and 4 mm

#### Probe Shaft

Material	Stainless-steel or Metal Free
Diameter	0.64 mm
Length	14 mm

#### Internal Volume

Inlet Volume	0.2 $\mu$ L
Outlet Volume	2.6 – 2.9 $\mu$ L

### Instructions for CMA 12 Elite 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 the desired length of tubing to the inlet and outlet of the probe. Short cannula = inlet, long cannula = outlet. Tubing Adaptors and FEP Tubing should be used for all connections. <b>To facilitate the handling of Tubing Adaptors, they should be pre-soaked in ethanol for a minimum of 10 minutes.</b>
4.	Mount the microdialysis probe CMA 11 & 12 Probe Clip on the CMA/130 <i>in vivo</i> Stand. Put the microdialysis probe in 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 min. The Tubing Adapter must be dry before flushing.
6.	Flush the probe with 8-10 $\mu$ L/min in the Perfusion Fluid for 4-5 min to wash out air. While flushing, “tap” with a scissor on the probe clip (not the probe) to remove air bubbles. The vibrations from the probe clip will in most cases remove the air bubble. If possible, check for air bubbles under a stereomicroscope. If the air bubble is not gone, the flushing and “tapping” must be repeated. The membrane is light blue when wetted, air bubbles occur as whiter spots. When flushing the membrane it may appear to be “sweating” which is due to ultrafiltration of fluid through the membrane.
7.	Set the pump to the required perfusion flow (usually 1-5 $\mu$ L/min) and check for leaks. The microdialysis probe is now ready for use.
8.	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.
9.	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.
10.	For further set up instructions, see CMA 120 System for Freely Moving Animals, User's Manual.

ORDER INFORMATION	Ref No.
CMA 12 Elite Microdialysis Probe, 1 mm, 3/pkg	CMA 8010431
CMA 12 Elite Microdialysis Probe, 2 mm, 3/pkg	CMA 8010432
CMA 12 Elite Microdialysis Probe, 3 mm, 3/pkg	CMA 8010433
CMA 12 Elite Microdialysis Probe, 4 mm, 3/pkg	CMA 8010434
CMA 12 Elite Metal Free, 1 mm, 3/pkg	CMA 8011201
CMA 12 Elite Metal Free, 2 mm, 3/pkg	CMA 8011202
CMA 12 Elite Metal Free, 3 mm, 3/pkg	CMA 8011203
CMA 12 Elite Metal Free, 4 mm, 3/pkg	CMA 8011204
CMA 12 Guide Cannula, 3/pkg	CMA 8309024
CMA 12 Guide Cannula, 30/pkg	CMA 8309025
CMA 12 Guide Metal Free, 3/pkg	CMA 8011205
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 11 & 12 Probe Clip	CMA 8309013
Perfusion Fluid CNS	CMA P000151
Microsyringe 1 mL	CMA 8309020
Microsyringe 2.5 mL	CMA 8309021
Glass Ionomer Cement Kit	CMA 750027
Trephine Drill Bits	CMA 8011158
Anchor Screw Drill Bits	CMA 8003264
Anchor Screws	CMA 7431021
Anchor Screw Driver	CMA 8309637
CMA 130 In-Vitro Stand	CMA 8309102

## 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 12 Elite 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 12 Elite Microdialysis Probes.*



### CMA Microdialysis AB

Head Office, Sweden  
 Torshamnsgatan 30A, SE-164 40 Kista, Sweden  
 Tel: +46 8 470 10 00  
 E-mail: [cma@microdialysis.se](mailto:cma@microdialysis.se) • [www.microdialysis.com](http://www.microdialysis.com)

### Harvard Apparatus

84 October Hill Road  
 Holliston, MA 01746 USA  
 Phone Orders: 800-232-2380 • Fax: 508-429-5732  
 E-mail: [support@hbiosci.com](mailto:support@hbiosci.com) • [www.harvardapparatus.com](http://www.harvardapparatus.com)