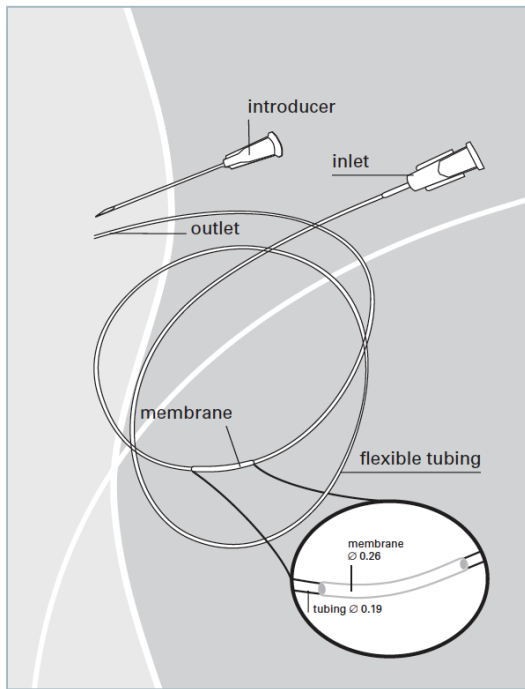


## CMA 31 Linear Microdialysis Probe User's Manual



### TECHNICAL INFORMATION

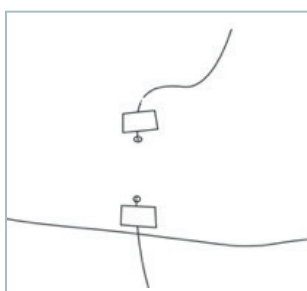
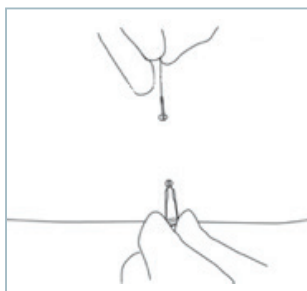
#### Membrane

Material	Polyethersulfone (PES)
Molecular Cut-Off	55,000 Daltons
Outer Diameter	0.26 mm
Length	10 mm

#### Tubing

Material	Polyimide
Length Inlet Tubing	350 mm
Length Outlet Tubing	100 mm
Total Length (tubing + membrane)	460 mm
Outer Diameter	0.19 mm
Double Tubing Material	PEEK
Double Tubing Outer Diameter	0.63 mm
Double Tubing Length	12 mm

The probe can be sterilized in its inner package with ethylene oxide.



### Cutaneous Implantation, Anesthetized Animal

For CMA 31 Linear Microdialysis Probe: To avoid ultra filtration over the membrane the probe should be used with a Perfusion Fluid consisting of a Ringer solution containing 30g Dextran 60/1000mL.

1. Anesthetize the animal. Be sure to keep the animal's body temperature normal during the surgical procedure and the study period by using a homeothermic blanket.
2. Clean and shave the animal.
3. Mark the skin with a felt tip marker where the introducer needle should go in and exit, leaving at least an 18 mm window if drug transport is studied. Tunnel the introducing needle at the appropriate depth required for the experiment.
4. Load the CMA pump with a Perfusion Fluid-filled syringe (either a Luer lock single use syringe or a glass syringe with a fixed needle). Make sure there are no air bubbles.
5. Connect the inlet Luer lock connector to the single use syringe or cut off the Luer lock connector from the probe inlet with a sharp cut, and connect it to the glass syringe needle via a **blue** Tubing Adapter. **To facilitate the handling of Tubing Adaptors, they should be pre-soaked in ethanol for a minimum of 10 minutes.**
6. Start the pump at 5  $\mu$ L/min. Confirm that liquid is flowing from the outlet of the probe. Maintain this flushing rate for approximately 2-3 min to remove air bubbles.
7. Reduce the flow rate to operational rates, usually 1-3  $\mu$ L/min.
8. Remove the protective tubing from the probe. Slide the probe outlet tubing through the needle end of the introducer carefully so the membrane sits in the middle of the introducer. Make sure not to kink the tubing.
9. Check that the flow rate is the same as before the insertion. Hold the probe in place against the skin while carefully withdrawing the introducer needle.
10. Secure the probe position with surgical tape or surgical glue.
11. Wait at least 30 min for stabilization before starting the sample collection.

ORDER INFORMATION	Ref No.
CMA 31 Linear Microdialysis Probe, 4/pkg	CMA 8010631
Tubing Adapter, 10/pkg	CMA 3409500
FEP Tubing 1m, 1/pkg	CMA 3409501
FEP Tubing 1m, 10/pkg	CMA 8409501
Vial, plastic, 300µL, 1000/pkg	CMA 7431100
Caps Plastic re-sealing, 1000/pkg	CMA 7431102
Perfusion Fluid T1	CMA P000034
Microsyringe 1 mL	CMA 8309020
Microsyringe 2.5 mL	CMA 8309021

## 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 31 Linear 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 31 Linear Microdialysis Probes.*



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