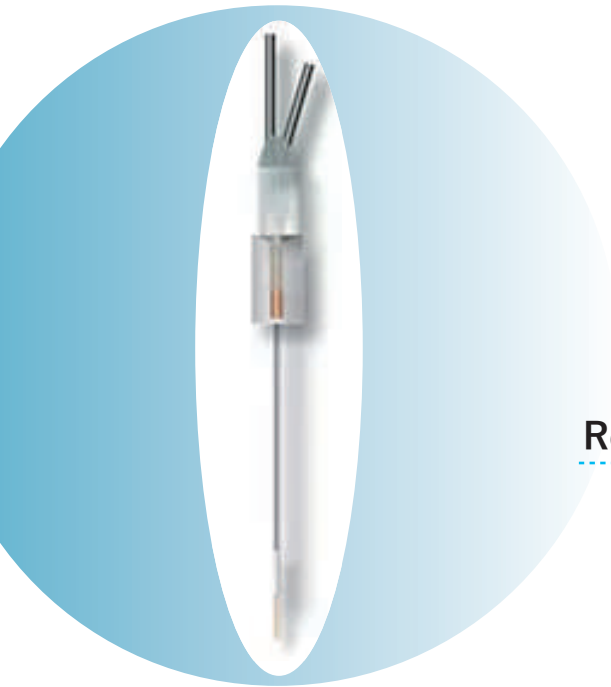


# Types of membranes for microdialysis probes and approximate substances recovered



## Microdialysis probe classification of Eicom

For low molecules  
Push only  
(Syringe pump)

For high molecules  
Push-Pull  
(Syringe pump and Roller pump)

### Regenerated cellulose

MWCO : 50kDa

■ Probe example

FX-I-X-Y (standard, brain)

CX-I-X-Y (standard, brain)

OP-X-Y (peripheral organ)

TP-X-Y (blood vessel)

### Polyethylene

MWCO : 1,000kDa

■ Probe example

PEP-X-Y (standard, brain)

OPE-X-Y (peripheral organ)

TPE-X-Y (blood vessel)

### Polyacrylonitrile

MWCO : 100kDa

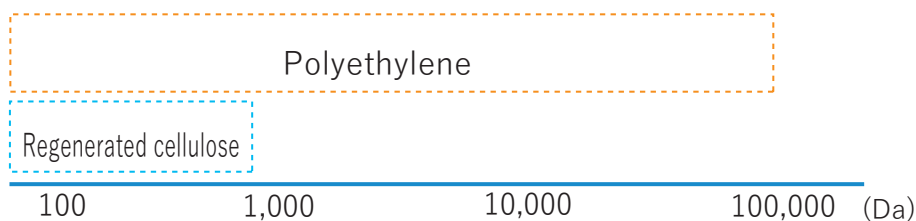
■ Probe example

PAP-X-Y (standard, brain)

OPA-X-Y (peripheral organ)

TPA-X-Y (blood vessel)

## Standard of recoverable substances (molecular weight), etc.



### Regenerated cellulose

Compared to monoamines and amino acids, the recovery rate is lower for substances as 1 kDa.  
(Approximate molecular weight : serotonin 176Da, glutamic acid 147Da, acetylcholine 146Da)

### Polyethylene

Tau protein of about 60kDa has been recovered.

We have received information that antibodies of about 100 kDa have been successfully recovered.  
(Approximate molecular weight : Amyloid- $\beta$  4.4kDa, Ghrelin 3.4kDa, Leptin 16kDa,  $\alpha$ -Synuclein 14kDa)

However, in the case of fat-soluble substances, it may be difficult to recover them with Ringer's solution-based perfusate.  
Please try in vitro recovery experiments first to see how much of the target substance can be recovered.