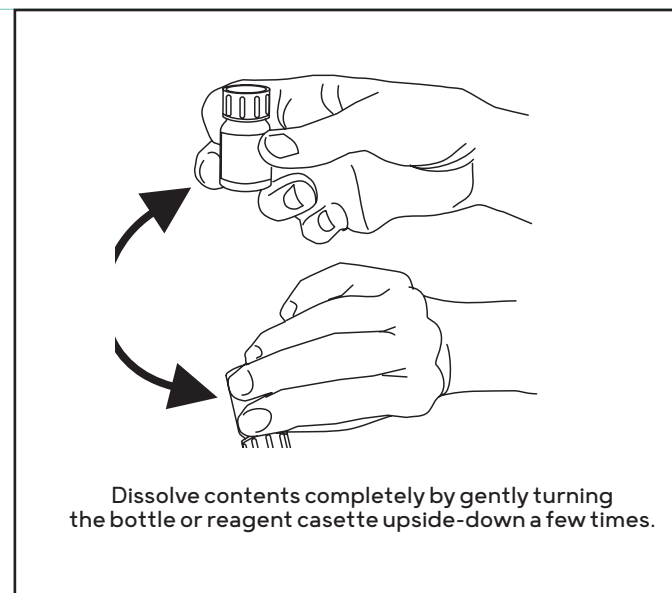




## Reagents for Microdialysis Analyzer



Preparation and stability of solution.

1. Unscrew the cap with the membrane from the reagent bottle. Remove and discard the rubber stopper.
  2. Transfer the contents of the buffer bottle to the reagent bottle.
  3. Fasten the cap with the membrane on the reagent bottle, without Rubber stopper.
  4. Dissolve contents completely by gently turning the bottle upside-down at least ten times. Let the reagent stand and equilibrate in room temperature for at least 30 minutes prior to use. Turn the bottle a couple of times before placing the reagent in the Microdialysis Analyzer
- Reconstituted reagent is stable for five days in the instrument and for two weeks when stored, protected from daylight, at +2 to +8°C.

### Ordering information

	Ref. No.
<b>Reagent kit</b> Incl. Glucose 1x6mL, Lactate 1x6mL, Pyruvate 1x6m, Glycerol 1x6mL, Calibrator A 1x6 mL	P000011
<b>L-P-G Reagent kit</b> Incl. Glucose 1x6mL, Lactate 1x6mL, Pyruvate 1x6m, Calibrator A 1x6 mL	8010361
<b>Reagent set A</b> Incl. Glucose 1x6mL, Lactate 1x6mL, Pyruvate 1x6m, Glycerol 1x6mL, Calibrator A 1x6 mL	8002163
<b>Reagent set B</b> Incl. Glucose 1x6mL, Lactate 1x6mL, Pyruvate 1x6m, Glycerol 1x6mL, Glutamate 1x4mL, Calibrator A 1x6 mL	8002164
<b>Reagent set C</b> Incl. Glucose 1x6mL, Lactate 1x6mL, Pyruvate 1x6m, Calibrator A 1x6 mL	8002165

**μ dialysis**

www.mdialysis.com

Headquarters:

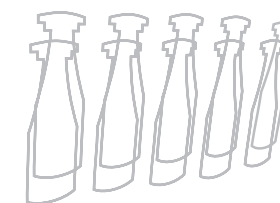
Box 5049 · SE-121 05 · Stockholm · Sweden  
Tel: +46-8-470 1020 · E-mail: info@mdialysis.se

US office:

73 Princeton Street, North Chelmsford · MA 01863 · USA  
Tel: +1-(978) 251-1940, +1 866 868 9236 Fax: +1-(978) 251-1960 · E-mail: usa@mdialysis.com

81010186A 2021-10-25

# Reagent kits & sets



## Reagents for Microdialysis Analyzer

MDialysis offers both Reagent kits and Reagents sets for the ISCUSflex Microdialysis Analyzer.

- Reagents sets are for routine use, comes in a cassette and simplifies usage with a cassette code.
- Reagent kits are more for research, are loaded as single reagents in the analyzer.

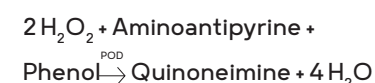
This product sheet informs about the Calibrator A and the different Reagents that are available in the various Reagents sets and the kits.

## Glucose

*Colorimetric method for the quantitative determination of glucose in Microdialysates.*

Measuring principle

Glucose is enzymatically oxidised by glucose oxidase (GOD). The hydrogen peroxide formed reacts with phenol and 4-amino-antipyrine. This reaction is catalyzed by peroxidase (POD) and yields the red-violet colored quinoneimine. The rate of formation is measured photometrically at 546 nm and is proportional to the glucose concentration.



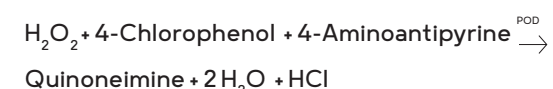
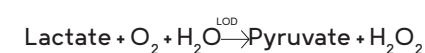
Linear range: 0.1 - 25 mmol/L

## Lactate

*Colorimetric method for the quantitative determination of lactate in Microdialysates.*

Measuring principle

Lactate is enzymatically oxidised by lactate oxidase. The hydrogen peroxide formed reacts with 4-chlorophenol and 4-amino-antipyrine. This reaction is catalyzed by peroxidase (POD) and yields the red-violet colored quinoneimine. The rate of formation is measured photometrically at 546 nm and is proportional to the lactate concentration.



Default linear range: 0.1 - 12 mmol/L

### Assay Conditions

Sample volume: 0.5 μL  
Reagent Volume: 14.5 μL  
Wavelength: 546 nm  
Linear Range: 0.1-25 mmol/L

### Assay Conditions

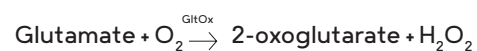
Sample volume: 0.4 μL or 0.8 μL  
Reagent Volume: 14.6 μL or 14.2 μL  
Wavelength: 546 nm  
Linear Range: 0.1-12 or 0.02 - 2.5 mmol/L



## Glutamate

Colorimetric method for the quantitative determination of Glutamate in Microdialysates.

**Measuring principle**  
Glutamate is enzymatically oxidized by glutamate oxidase (GltOx). The hydrogen peroxide formed reacts with N-ethyl-N-(2-hydroxy-3-sulfopropyl)-m-toluidine and 4-amino-antipyrine. This reaction is catalyzed by peroxidase (POD) and yields the red-violet colored quinonediimine. The rate of formation is measured photometrically at 546 nm and is proportional to the glutamate.



Linear range: 1 - 150 µmol/L

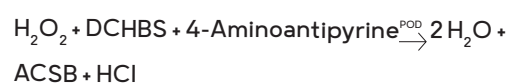
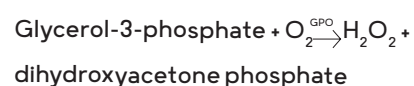
### Assay Conditions

Sample volume: 1.3 µL  
Reagent Volume: 7.7 µL  
Wavelength: 546 nm  
Linear Range: 1 - 150 µmol/L

## Glycerol

Colorimetric method for the quantitative determination of glycerol in Microdialysates.

**Measuring principle**  
Glycerol is phosphorylated by adenosine triphosphate (ATP) and glycerol kinase (GK) to glycerol-3-phosphate, which is subsequently oxidized in the presence of glycerol-3-phosphate oxidase (GPO). The hydrogen peroxide formed reacts with 3,5-dichloro-2-hydroxy-benzene sulphonic acid (DCHBS) and 4-amino-antipyrine. This reaction is catalyzed by peroxidase (POD) and yields the red-violet colored quinoneimine. The rate of formation is measured photometrically at 546 nm and is proportional to the glycerol concentration.



Default linear range: 10 - 1500 µmol/L

### Assay Conditions

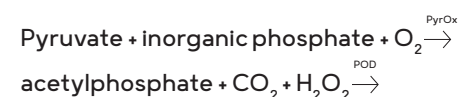
Sample volume: 0.4 µL or 2.0 µL  
Reagent Volume: 14.6 µL or 13.0 µL  
Wavelength: 546 nm  
Linear Range: 10 - 1500 µmol/L or 2 - 500 µmol/L



## Pyruvate

Colorimetric method for the quantitative determination of pyruvate in Microdialysates.

**Measuring principle**  
Pyruvate is enzymatically oxidized by pyruvate oxidase (PyrOx). The hydrogen peroxide formed reacts with N-ethyl-N-(2-hydroxy-3-sulfopropyl)-m-toluidine and 4-amino-antipyrine. This reaction is catalyzed by peroxidase (POD) and yields the red-violet colored quinonediimine. The rate of formation is measured photometrically at 546 nm and is proportional to the pyruvate concentration.



Default linear range: 10 - 300 µmol/L

### Assay Conditions

Sample volume: 0.5 µL or 2.0 µL  
Reagent Volume: 14.5 µL or 13.0 µL  
Wavelength: 546 nm  
Linear Range: 10 - 1500 µmol/L or 10 - 300 µmol/L

## Calibrator A

Calibrator for Microdialysis Analyzer

For calibration of

P000023 Glucose Reagent  
P000024 Lactate Reagent  
P000025 Glycerol Reagent  
P000026 Urea Reagent  
P000063 Pyruvate Reagent  
P000064 Glutamate Reagent

### Content

Analyte	Concentration
Glucose	5.55 mmol/L
Lactate	2.5 mmol/L
Glycerol	475 µmol/L
Urea	13.3 mmol/L
Pyruvate	250 µmol/L
Glutamate	25 µmol/L