



- Monitoring metabolic markers
- Compact and portable
- User-friendly

ISCUS

Clinical Microdialysis Analyzer

ISCUS is a single patient clinical microdialysis analyzer for monitoring brain chemistry during surgery and intensive care. The large touch screen and user-friendly software make it fast to learn and easy to operate. Three different markers of tissue ischemia can be monitored in every sample. Sample vials may be changed as often as every five minutes.

Monitoring changes in brain tissue chemistry

Microdialysis is a technique for continuous sampling of brain tissue chemistry and firmly based on more than 10,000 articles in scientific and medical journals. The chemical substances in the interstitial fluid are sampled by the microdialysis catheter, analyzed by ISCUS and the results are displayed as trend curves that are easily interpreted by the staff for diagnostic and prognostic purposes.

Biochemical markers in the tissue identify patients at risk of complications and guide therapy. Changes in tissue and organ chemistry are often apparent before clinical signs of complications become evident. The trend curves show changes in tissue chemistry over the entire period of patient monitoring. Any deviation from normal values is easily detected.

Chemical markers

Ischemia causes well known changes in the glucose metabolism lowering glucose and elevating lactate and more specifically the lactate/pyruvate ratio. Reagents are available for the analysis of glucose, lactate and pyruvate.



CMA *Microdialysis*
www.microdialysis.com





The microdialysis system

The Microdialysis Catheter (1) is connected to the Microdialysis Pump (2). The outlet tube extends to a holder for a microvial (3) that collects the dialysis sample. The samples are then analyzed in the ISCUS Clinical Microdialysis Analyzer (4). The result of the analysis is displayed minutes later on the screen.

technical information

Dimensions	430 (H) x 350 (W) x 270 (D) mm
Weight	29 lbs/13 kg
Voltage	100-240 V~, 50/60 Hz
Power consumption	100 VA
Type of protection	Class 1, Type B
Measurement principle	Kinetic enzymatic analyzer
Samples	Microdialysates
Sample volume used	0.2 - 1 µL/analysis (depending on analyte)
Min. sample volume	Sum of sample volumes per analyte + 2 µL
Reagent consumption	≤15 µL/analysis (depending on analyte)
Pipetting imprecision	≤ 2 % (0.5 µL) rel. standard deviation
Calibration	Automatic (every 6 hrs)
Warm-up time	10 minutes
Measuring time	30 seconds
Throughput time/test	60-90 seconds (depending on analyte)
Detector type	Single beam filter photometer
Light source	Class 1 LED
Wavelengths	375 and 530 nm
Detector cell	Capillary flow cell 10 mm, 2 µL
Detector cell temperature	98.6 °F/37 °C
Assay imprecision	<4 % rel. standard deviation
Assay inaccuracy	<10 % for Control Samples

Other microdialysis products

CMA 70 Brain Microdialysis Catheter (60/10)	4/pkg	P000049
CMA 70 Brain Microdialysis Catheter (100/10)	4/pkg	P000050
CMA 70 Brain Microdialysis Catheter (60/20)	4/pkg	P000080
CMA 70 Microdialysis Bolt Catheter (130/10)	4/pkg	P000131
CMA 106 Microdialysis Pump		P000003
Battery 2x3 V for CMA 106	1/pkg	8001788
CMA 106 Syringes	20/pkg	8010191
Perfusion Fluid CNS 5 mL	10/pkg	P000151
Microvials	250/pkg	P000001
Microvial rack	12/pkg	P000028
Microvials in rack, sterile	12x4/pkg	P000154

ordering information

ISCUS Clinical Microdialysis Analyzer **Ref. No. 8002720**

ISCUS Clinical Microdialysis Analyzer **8002200**
Incl. 3x CMA 106 Microdialysis Pumps

Accessories

Rinsing fluid 0.5 L	8/pkg	8002171
Waste bottle 0.5 L	8/pkg	8002161
Thermal print paper 100.1 feet	4/pkg	8002162
Sample Cannula	1/pkg	8001721
Secure Digital Memory Card	1/pkg	8002360
Control samples, 3 levels 5 mL	3x3/pkg	8010306

Reagent Set C		8002165
Glucose Reagent 6 mL	1/pkg	
Lactate Reagent 6 mL	1/pkg	
Pyruvate Reagent 6 mL	1/pkg	
Calibrator A 6 mL	1/pkg	



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