

NeuroFluidics NeoBento DuaLink SHIFT MEA EDGE (Acro Certified)

Catalog No.: NFDLSMEA-3

NeuroFluidics MEA Line

MEA-capable high-throughput compartmentalized organs-on-chip devices for 2D cell culture & its utility software

- Achieves the fusion of electrophysiology and microfluidics
- MEA-capable compartmentalized microfluidic devices
- In collaboration with Axion Biosystems

Features	
Specially designed to monitor the functional activity of synapses.	
• EDGE Version: 8 Chips per plate (the top half) with 336 electrodes • Synapses electrophysiology activity isolation per compartment & remote	
Technical Specifications	
Surface Area:	• Channel 1: 18800 × 1000 × 200 μm (L × W × H), 18.8 mm² (32.9 mm² with reservoirs) • Channel 2: 6000 × 200 × 200 μm (L × W × H), 1.2 mm² (15.3 mm² with reservoirs) • Channel 3: 18800 × 1000 × 200 μm (L × W × H), 18.8 mm² (32.9 mm² with reservoirs) • Microchannels Tunnels: 108 × 6 (±1) × 3,2 μm (L × W × H) for channel 1 to 2; 513 × 6 (±1) × 3,2 μm (L × W × H) for channel 2 to 3; n=200; spaced by 20 μm
Volumes:	• Channel 1: 3.8 μL (117.7 μL with reservoirs) • Channel 2: 0.24 μL (114.1 μL with reservoirs) • Channel 3: 3.8 μL (117.7 μL with reservoirs)
Materials:	• Microfluidic chip: PolyDiMethylSiloxane biocompatible and low compound absorbing (layer 170 μm thick + refractive index: 1.4) • NeoBento: Polystyrene (1.4 mm thick + refractive index: 1.59) • MEA Surface: PET (125 μm thick + refractive index: 1.64) SU8 (5 μm coating) PEDOT-coated gold electrodes
Formats:	• Microfluidic chip: 3 × 2 wells • QuarterBentos: 4 chips (52,6 × 34,6 × 6,2) • NeoBento: SLAS standard 96-well plate (127,8 × 85,5 × 17,1 mm)
Functions and Readouts	
Capabilities:	• Co-culture & compartmentalization • hiPSC derived cell • Synaptic isolation • Functional analysis
Applications:	• Study of synapses (pre-, post- and synaptic compartment) • Synaptic transmission and localization • Mitochondrial transport • Microglial cells migration • Neuroinflammation
Readouts:	• Immunofluorescence • Live Dead Assays • Live Staining • Liquid chromatography • Mass Spectroscopy

Product Data Sheet (DS)



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| | <ul style="list-style-type: none">• Lysis cell/supernatant analysis• ELISA• Calcium Imaging• Electrophysiology |
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