Product Data Sheet (DS)





NeuroFluidics NeoBento Dualink MEA PRO (Acro Certified)

Catalog No.: NFDLMEA-4

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 2 physiological compartments of cell populations

- PRO Version: 16 Chips with 672 electrodes per plate
- Cell type electrophysiology activity isolation per compartment & remote stimulation

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: 125 × 6 (±1) × 3,2 μm (L × W × H); n=200; spaced by 20 μm • 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) • Channel 3: 3.8 μL (117.7 μL with reservoirs) • 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-congold electrodes • 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 • Co-culture & compartmentalization • hiPSC derived cell • Axonal transport • Functional analysis • Drug screening • Innervated skin • Toxicology • Virology • Neuroinflammation • Neuromuscular junction	Technical Specifications	
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Functions and Readouts Capabilities: - Co-culture & compartmentalization - hiPSC derived cell - Axonal transport - Functional analysis - Drug screening - Innervated skin - Toxicology - Virology - Neuroinflammation		
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Axonal transport Functional analysis Drug screening Innervated skin Toxicology Virology Neuroinflammation	Capabilities:	Co-culture & compartmentalization
Applications: • Axonal transport • Functional analysis • Drug screening • Innervated skin • Toxicology • Virology • Neuroinflammation		hiPSC derived cell
Drug screening Innervated skin Toxicology Virology Neuroinflammation		Axonal transport
• Innervated skin • Toxicology • Virology • Neuroinflammation		Functional analysis
• Toxicology • Virology • Neuroinflammation	Applications:	Drug screening
Applications: • Virology • Neuroinflammation		Innervated skin
Applications: • Neuroinflammation		• Toxicology
• Neuroinflammation		• Virology
Neuromuscular junction		Neuroinflammation
ı		Neuromuscular junction
Motor neuron diseases		Motor neuron diseases
Study of the functional activity of neurons		Study of the functional activity of neurons
Immunofluorescence	Readouts:	Immunofluorescence
Readouts: • Live Dead Assays		Live Dead Assays
• Live Staining		Live Staining



Product Data Sheet (DS)





- · Liquid chromatography
- Mass Spectroscopy
- Lysis cell/supernatant analysis
- ELISA
- Calcium Imaging
- · Electrophysiology

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