

NeuroFluidics NeoBento Dualink SHIFT LIGHT (Acro Certified)

Catalog No.: NFDLS-1

NeuroFluidics Line

High-throughput compartmentalized organs-on-chip devices for 2D cell culture

- Variety of architectures and related applications
- Variety of readouts compatibility
- Microchannels compartmentalization

Features	
Specially designed to recreate synapses isolation and monitor axonal growth kinetics.	
<ul style="list-style-type: none"> • LIGHT Version: 8 Chips & Data points per plate • Discontinuous connectivity • Asymmetrical shape with microchannels of different length (shorter length between the first and second channel than between the second and third channel). 	
Technical Specifications	
Surface Area:	<ul style="list-style-type: none"> • 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: 100 × 6 (±1) × 3,2 μm (L × W × H) for channel 1 to 2; 500 × 6 (±1) × 3,2 μm (L × W × H) for channel 2 to 3; n=200; spaced by 20 μm
Volumes:	<ul style="list-style-type: none"> • 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:	<ul style="list-style-type: none"> • 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)
Formats:	<ul style="list-style-type: none"> • 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:	<ul style="list-style-type: none"> • Co-culture & compartmentalization • hiPSC derived cell • Synaptic isolation • Functional analysis
Applications:	<ul style="list-style-type: none"> • Study of synapses (pre-, post- and synaptic compartment) • Synaptic transmission and localization • Mitochondrial transport • Microglial cells migration • Neuroinflammation
Readouts:	<ul style="list-style-type: none"> • Immunofluorescence • Live Dead Assays • Live Staining • Liquid chromatography • Mass Spectroscopy • Lysis cell/supernatant analysis

Product Data Sheet (DS)



	<ul style="list-style-type: none">• ELISA• Calcium Imaging• Electrophysiology
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