LabCore
MATERIALS

Staggered Herringbone Micromixer Chip, PDMS/ Glass, Chaotic-Advection Mixing, Plasma-Bonded, for Nanoparticle & LNP Synthesis Research, with Tubing Kit, 45x20mm (RUO)

Staggered herringbone micromixer (SHM) with 21 µm-deep grooves driving chaotic advection. >90% mixing in a single channel length. For nanoparticle synthesis, LNP formulation research and protein crystallization screening (RUO).

Microfluidic Chips

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Product Overview

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The Staggered Herringbone Micromixer (SHM) integrates 21 µm-deep x 40 µm-wide herringbone grooves into a 200 µm-wide x 79 µm-deep main channel, driving chaotic advection that achieves >90% mixing efficiency within a single channel length. RTV615 PDMS is permanently plasma-bonded to borosilicate glass, withstanding sustained flow pressure with zero leakage. The complete mixing kit includes PTFE tubing, blunt needles and a syringe; 0.7 mm inlet/outlet ports connect to standard fittings. Compact 45x20 mm body fits common chip holders. Ideal for nanoparticle synthesis, lipid nanoparticle (LNP) formulation research, liposome preparation and protein-crystallization screening. **For research use only (RUO). Not for use in diagnostic or therapeutic procedures.**

In stock at Amazon warehouse, ship same day: https://www.amazon.com/dp/B0H6F3FL2R

Technical Specifications

Parameter	Value	Unit
Material	RTV615 PDMS / Borosilicate Glass	
Mixer Geometry	Staggered Herringbone (SHM)	
Main Channel Width	200	µm
Main Channel Depth	80	µm
Groove Depth	40	µm
Chip Format	45 x 20	mm
Substrate Thickness	1	mm
Port Size	0.7 (22-gauge compatible)	mm

Bonding	Oxygen Plasma (Permanent)	
Operating Pressure	<= 0.4	MPa

Order / Quote

Model	Pack Size	Availability
LC-SHM-M0004-1	1x PDMS/glass chip (45x20 mm), 1x PTFE tubing set, 2x blunt needle tips, 1x syringe, 1x sealed ESD bag with RUO label	In stock (Amazon / direct)

Current pricing and ordering: labcorematerials.com/products/staggered-herringbone-micromixer-chip/

Shipping & Compliance

- Ships as empty microfluidic hardware. No reagents, no biological materials. Not classified as dangerous goods.

Contact

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labcorematerials.com/products/staggered-herringbone-micromixer-chip/