

**Best-in-class
Pricing**

**Ideal for Drug
Discovery &
Development**

**Fully
Automated
Operations**

**Patented,
Multi-use
Microfluidic
Chip**

**Built-in
Washing
Program**

Specifications

Parameter	Value
Flow Rates	100 µL/min to 50 mL/min*
Batch Volume	2 mL to 30/60 mL*
No. of Pumps (precursors)	3
Syringe Sizes	500 µL, 1 mL, 2.5 mL, 5 mL, 10 mL, and 25 mL
Microfluidic Chips	2 Variants**
Controls	Total flow rate, flow ratio, sample volume, in-line dilution
Sample Collection Attachments	2 mL, 15 mL, and 50 mL
HMI Size	10 inches
Potential Applications	Synthesis of nanoparticles, liposomes, emulsions and more

* The upper limit of batch volume will depend on selected pump configuration, run parameters, and the microfluidic chip. Kindly contact us for further details.

** Microfluidic chip variant selection is based on desired batch volume and flow rate.



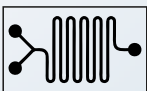
**Best-in-class
Pricing**



**Ideal for
Early Drug
Discovery**



**Automated
Operations**



**Patented,
Multi-use
Microfluidic
Chip**



**Compact
Footprint**

Specifications

Parameter	Value
Flow Rates	100 μ L/min to 20 mL/min
Batch Volume	0.8 mL to 2 mL
Syringe Sizes	500 μ L, 1 mL, and 2.5 mL
Controls	Total flow rate, flow ratio, sample volume
HMI Size	7 inches
Potential Applications	Synthesis of nanoparticles, liposomes, emulsions and more

Data You Can Trust

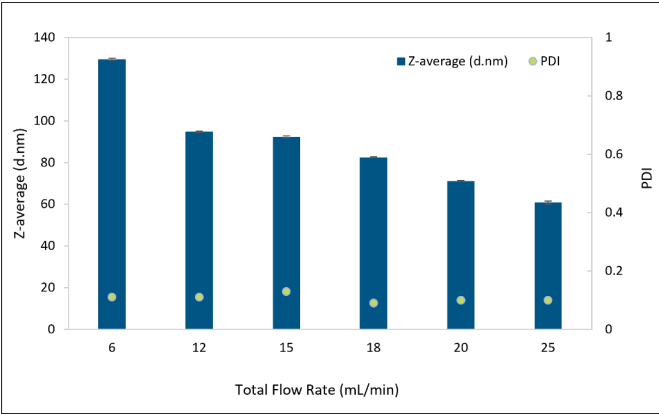


Figure 1: Effect of total flow rate on particle size and PDI at flow rate ratio of 1:3 (Org./Aq.). The particle size of DOTAP-based empty LNPs decreased with increasing flow rate, with PDI <0.2. Kindly refer to the table below for the complete formulation parameters.

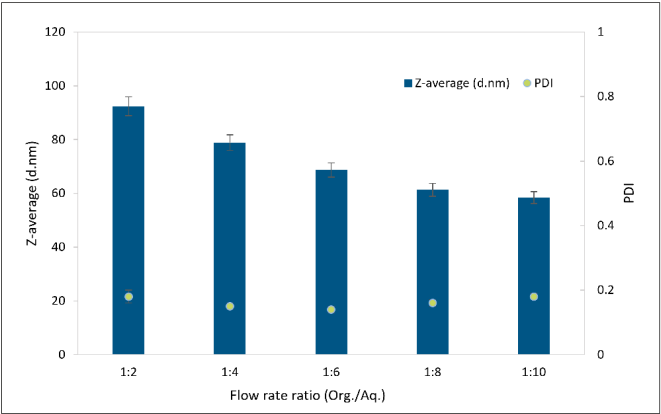


Figure 2: Effect of flow-rate ratio on particle size and PDI at a flow rate of 12 mL/min. The particle size of DOTAP-based empty LNPs decreased with increasing flow rate ratio, with PDI <0.2. Kindly refer to the table below for the complete formulation parameters.

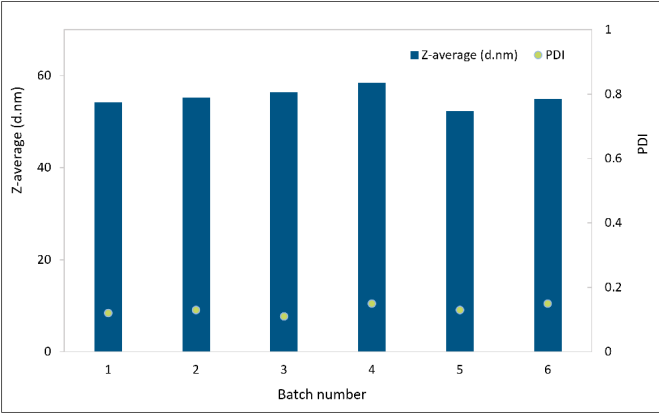


Figure 3: Batch-to-batch consistency of particle size and PDI at flow rate of 25 mL/min and flow rate ratio of 1:3 (Org./Aq.). The particle size and PDI of the DOTAP-based empty LNPs across batches indicate consistent and reproducible LNP formation. Kindly refer to the table below for the complete formulation parameters.

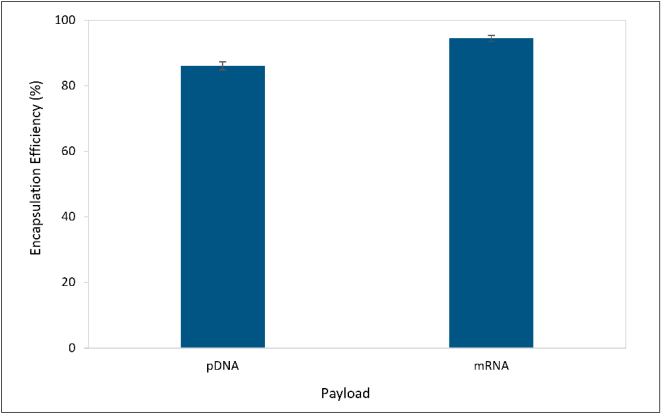


Figure 4: Encapsulation efficiency (EE) of nucleic acid cargo using DOTAP-based LNPs at flow rate of 12 mL/min and flow rate ratio of 1:3 (Org./Aq.). The formulations showed mRNA EE of >90% and pDNA EE of >85%. Kindly refer to the table below for the complete formulation parameters.

Parameter	Value
Lipid Composition	DOTAP:DSPC:CHOL:DMG PEG 2000
Molar Ratio	50:10:38.5:1.5
Total Lipid Molarity	35 mM
Organic Solvent	Ethanol
Aqueous Phase	Citrate buffer (50 mM, pH 4.8)
Dilution	10X in PBS

Client Generated Data

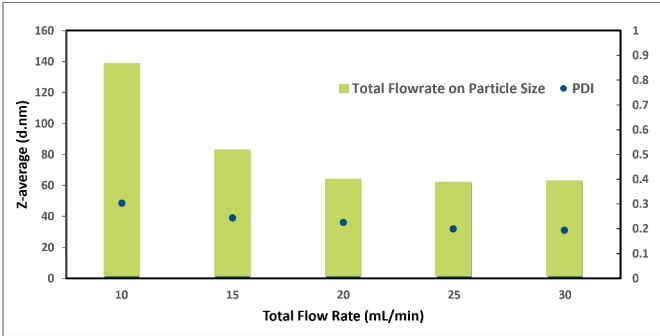


Figure 5: Effect of total flow rate on particle size at flow rate ratio of 1:3 (Org./Aq.). Particle size and PDI of empty LNPs made from DOTAP-based formulation using Nanomake-L, as reported by a client.



Excellence in Microfluidics

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