

Formulation Made Easier

NanoFabTx™ Formulation Kits



Formulate faster with our ready-to-use NanoFabTx™ formulation kits. NanoFabTx™ kits provide more reproducible synthesis from nano- to micro-sized particles, using both standard nanoprecipitation and microfluidic techniques. NanoFabTx™ kits facilitate early-stage drug nanoformulation screening with optimized protocols and a curated selection of polymer or lipid based materials for drug encapsulation.

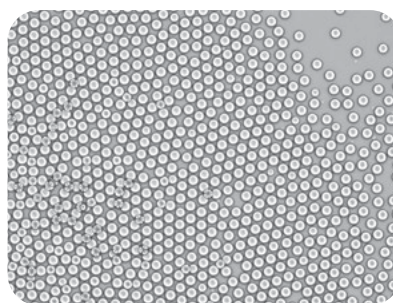
NanoFabTx™ reagent kits can be used with easy-to-use nanoprecipitation or extrusion methods, or can leverage the power of microfluidics when combined with NanoFabTx™ microfluidic device kits. Together, these kits enable simplified and rapid synthesis of monodispersed particles with minimal batch-to-batch variability. Device kits include pre-assembled microfluidic glass chips, tubing, and accessories, that are ready for connection with a fluid pump system.

Key Features:

- Step-by-step protocols developed and tested by our formulation scientists
- Flexible synthesis tool to create uniform and reproducible microparticles, nanoparticles, liposomes, or lipid nanoparticles
- Choose from traditional nanoprecipitation/extrusion or microfluidics protocols
- Optimized to make nanoparticles, liposomes, lipid nanoparticles, or microparticles with low polydispersity
- Formulations curated and tested by our R&D team
- Material screening kits available

Applications:

- Delivery of small molecules and nucleic acids
- Screening and selection of optimal formulations for liposomes, nanoparticles, and microparticles
- Controllable particle size control and low polydispersity
- Drug-loading capacity and efficiency optimization



Monodispersed microparticles fabricated using NanoFabTx™ formulation kits.



Microfluidic chip assembly in NanoFabTx™ device kit.

NanoFabTx™ Lipid Mixes

Cat. No.	Name	Description
930113	NanoFabTx™ - COOH Lipid Mix, for synthesis of carboxyl functionalized liposomes	Lipid formulation for small molecule delivery
924512	NanoFabTx™ - NH2 Lipid Mix, for synthesis of amine functionalized liposomes	Lipid formulation for small molecule delivery
922420	NanoFabTx™ - PEG Lipid Mix, for synthesis of PEGylated liposomes	Lipid formulation for small molecule delivery
926345	NanoFabTx™ - DC-Chol Lipid Mix, for synthesis of cationic (DC-Cholesterol) liposomes	Lipid formulation for nucleic acid delivery
926027	NanoFabTx™ - DOTAP Lipid Mix, for synthesis of cationic (DOTAP) liposomes	Lipid formulation for nucleic acid delivery

NanoFabTx™ Drug Formulation Kits

Cat. No.	Name	Description
912212	NanoFabTx™ PLGA-micro	For synthesis of 10-30 µm PLGA microparticles
912220	NanoFabTx™ PLGA-micro	For synthesis of 1-5 µm PLGA microparticles
909637	NanoFabTx™ PLGA-nano	For synthesis of 100-200 nm PLGA microparticles
918075	NanoFabTx™ Polymer drug formulation kit	For synthesis of 100-200 nm PLA microparticles

NanoFabTx™ Drug Formulation Screening Kits

Cat. No.	Name	Description	Kit Components
917796	NanoFabTx™ PEG-PLGA	Formulation screening kit for synthesis of 100-200 nm PEGylated PLGA nanoparticles	PEGPLGA-50L(912808) PEGPLGA-75L(913049) PEGPLGA-50H (915955) PEGPLGA-75H (915718) Stabilizer-Nano (907766)
920436	NanoFabTx™ PEG-PLA	Formulation screening kit for synthesis of 100-200 nm PEGylated PLA nanoparticles	PEGPLA-L-M (919942) PEGPLA-H-M (919934) Stabilizer-Nano (907766)
915408	NanoFabTx™ PEGylated	Formulation screening kit for synthesis of 100-200 nm PEGylated nanoparticles	PEGPLGA-50L (912808) PEGPLGA-75L (913049) PEGPLA-L (913308) PEGPCL-H (912549) Stabilizer-P (913448)
918881	NanoFabTx™ PEG-PCL	Formulation screening kit for synthesis of 100-200 nm PEGylated PCL nanoparticles	PEGPCL-L(915203-500mg) PEGPCL-H(912549) PEGPCL-UH (917788) Stabilizer-Nano (907766)

NanoFabTx™ Device Kits

Cat. No.	Name	Description	Kit Components
For microparticle synthesis			
911925	NanoFabTx™ microfluidic - micro	for synthesis of 1-5 µm particles	Microfluidic chip
912298	NanoFabTx™ microfluidic - micro	for synthesis of 10-30 µm particles	Microfluidic chip
911860	NanoFabTx™ microfluidic - micro	for synthesis of 1-5 µm particles	Microfluidic chip Tubing and accessories
911879	NanoFabTx™ microfluidic - micro	for synthesis of 10-30 µm particles	Microfluidic chip Tubing and accessories
For nanoparticle synthesis			
911917	NanoFabTx™ microfluidic - nano	for synthesis of 100-200 nm particles	Microfluidic chip
911593	NanoFabTx™ microfluidic - nano	for synthesis of 100-200 nm nanoparticles and liposomes	Microfluidic chip Tubing and accessories

NanoFabTx™ Device Kit Accessories

Cat. No.	Name	Description
916986	NanoFabTx™ microfluidic - Top Interface	Microfluidic device kit accessory
917494	NanoFabTx™ microfluidic - tubing, 250 µm FEP with ferrules, 10m	Microfluidic device kit accessory
917877	NanoFabTx™ microfluidic - In line filter	Microfluidic device kit accessory
916862	NanoFabTx™ microfluidic - tubing, 100 µm FEP with ferrules, 10m	Microfluidic device kit accessory
916609	NanoFabTx™ microfluidic - End fittings for 1.6 mm tubings	Microfluidic device kit accessory
917230	NanoFabTx™ microfluidic - Interface H	Microfluidic device kit accessory



For a complete list of NanoFabTx™ formulation kits, visit:
SigmaAldrich.com/nanofabtx

To place an order or receive technical assistance in the U.S. and Canada, call toll-free 1-800-645-5476
 For other countries across Europe and the world, please visit: SigmaAldrich.com/offices
 For Technical Service, please visit: SigmaAldrich.com/techservice

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