

Datasheet

LipidFlex™ Antibody Conjugation LNP Formulation Kit

Versatile kit for customizable, antibody-conjugated LNP delivery systems

Product Overview

LipidFlex Antibody Conjugation LNP Formulation Kit enables researchers to encapsulate their own payload and conjugate custom antibodies for the development of targeted lipid nanoparticles (LNPs). The kit streamlines both encapsulation and antibody conjugation, empowering innovative delivery strategies in gene therapy, vaccine development, and oncology.

Key Features

- **Ready-to-use** lipid mixes optimized for precise LNP formulation.
- **Dual capability** for both payload encapsulation and antibody surface conjugation.
- **High transfection efficiency** and consistent protein expression.
- **Narrow particle size distribution** for reproducible and reliable results.
- **Flexible lipid choices:** Four clinically relevant ionizable lipid options.

Applications

- **Targeted Cancer Therapy:** Deliver cytotoxic or immunotherapeutic payloads to tumor cells via surface marker targeting.
- **Gene Therapy Research:** Achieve effective delivery of mRNA, siRNA, or gene editing reagents to specific cell populations.
- **Drug Delivery Studies:** Evaluate encapsulation and targeting of small-molecule or protein therapeutics.
- **Vaccine Development:** Facilitate advanced nucleic acid delivery for next-generation vaccine platforms.

Kit Specifications

Ionizable Lipid Option	Catalog Number	Kit Components	Storage
MC3	PG-LPF03-ABC-Q1ML	Antibody Conjugation Lipid Mix (1 mL), MC3 Ionizable Lipid (25 mg), TCEP (0.5M, 1 mL)	Lipids: -20°C; TCEP: 4°C

Ionizable Lipid Option	Catalog Number	Kit Components	Storage
SM-102	PG-LPF02-ABC-Q1ML	Antibody Conjugation Lipid Mix (1 mL), SM-102 Ionizable Lipid (25 mg), TCEP (0.5M, 1 mL)	Lipids: -20°C; TCEP: 4°C
ALC-0315	PG-LPF05-ABC-Q1ML	Antibody Conjugation Lipid Mix (1 mL), ALC-0315 Ionizable Lipid (25 mg), TCEP (0.5M, 1 mL)	Lipids: -20°C; TCEP: 4°C
LP01	PG-LPF01-ABC-Q1ML	Antibody Conjugation Lipid Mix (1 mL), LP01 Ionizable Lipid (25 mg), TCEP (0.5M, 1 mL)	Lipids: -20°C; TCEP: 4°C

Storage & Handling

- **Antibody Conjugation Lipid Mix:** Store at -20°C.
- **Ionizable Lipid:** Store at -20°C.
- **TCEP (0.5M):** Store at 4°C.
- **Stability:** 12 months when stored properly under recommended conditions.
- Avoid repeated freeze-thaw cycles and handle all reagents using aseptic techniques.

Custom Solutions

Custom lipid formulations, antibody conjugation protocols, and bulk kits are available. Technical support and consultation services are provided for protocol optimization and troubleshooting.

Important Notes

For Research Use Only.

This product is not for human or veterinary use.

For technical support, custom formulations, or bulk orders, please contact us.