NanOZ Fluorescent LNP-DiL
(NanOZ Lipid Nanoparticles fluorescently labeled using DiL (DiIC18(3)) orange/red-fluorescent cyanine dye)

Description

Ready-to-use stabilized **DiL-labeled LNPs** for *in vitro* cellular and subcellular distribution and *in vivo* imaging.
Concentration: LNPs containing 1 mole % of DiL
Buffer: PBS, 10 % sucrose

LNPs represent one of the most effective and safe delivery systems for the translational success of nucleic acid drugs. LNPs are lipidic spherical vesicles formed by a combination of four main components: an ionizable cationic lipid, a helper phospholipid, cholesterol & a pegylated lipid, each having distinct functions. LNPs not only protect RNA from degradation, but also facilitate intracellular uptake and thus potentiate its efficacy.
NanOZ Fluo LNP-DiL (**Fig.1**) is designed for the effective monitoring and imaging of intracellular trafficking and biodistribution of LNPs *in vitro* and *in vivo* respectively. **NanOZ Fluo LNP-DiL** contains a lipophilic carbocyanine dye DiL having an excitation max. at 549 nm, and emission max. at 565 nm.

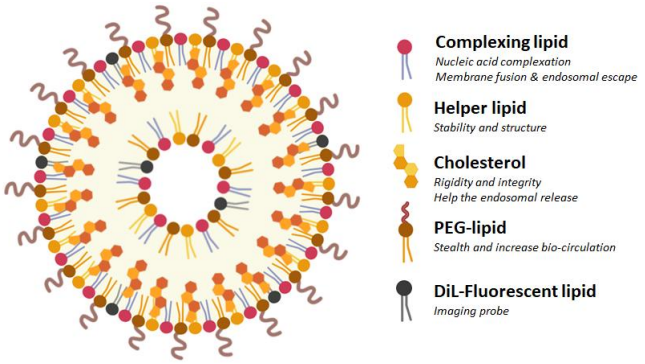

Fig.1. Schematic representation of LNPs-DiL

Applications

DiL detection
The DiL has an excitation peak at 549 nm and emission peak at 565 nm and can be monitored by flow cytometer, plate readers and confocal microscopy.

Quality Controls

Items	Specification	Standard QC	Superior Grade QC*
Identity	Size	✓	✓
	Charge	✓	✓
Safety	Sterility	✓	✓
	Endotoxin		✓
	Mycoplasma detection		✓
Characterization	Lipid content		✓

* Contact us to get a quote.

Certificate of analysis on demand.

Use, handling and storage

For Research Use Only. Not for use in humans. Not for use in diagnostic or therapeutic purposes.

Long term storage (6 months): -80°C.
Short term storage (2 months): +4°
We recommend minimizing freeze-thaw cycles to preserve LNPs integrity.

Kit contents

LFL11000: 1mL (4*250µL) of LNP-DiL, (4.5 mM) having composition as described in table below:

Lipid mix components	Molecular weight	Molar ratio
FP105	731.2	50.0
DSPC	790.2	9.0
Cholesterol	386.7	38.5
DMG-PEG 2000	2509.2	1.5
DiL	933.9	1.0
Total		100.0

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Related Products

Ref	Description
#**LNP10500**	Empty LNP
#**LNP10500mRNA11**	NanOZ-LNP/mRNA (GFP).
#**LNP10500mRNA12**	NanOZ-LNP/mRNA (LUC).
#**LNP10500mRNA41**	NanOZ-LNP/mRNA (OVA).

Custom LNPs & mRNAs are also available now!

Purchaser Notification | Conditions of Sale

This product is sold in accordance with our general conditions of sale that you can find on our website: https://ozbiosciences.com/content/3-terms-and-conditions.