PRODUCT INFORMATION

LipidLaunch™ SM-102 LNP (GFP)

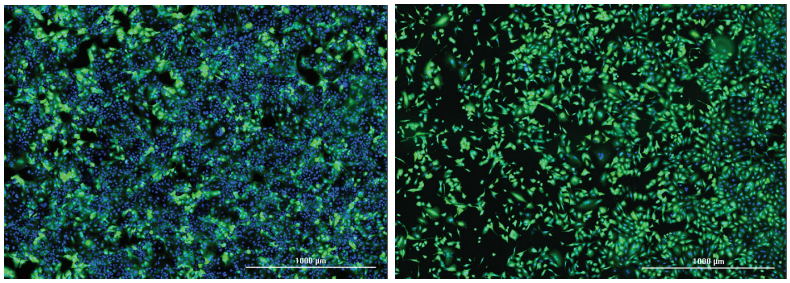
Item No. 39320

Overview and Properties

Storage: -80°C (as supplied)
Stability: ≥6 months
Supplied in: TBS, pH 7.4, with 10% sucrose
Ex./Em. Max: 488/507 nm

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Images



Transfection of cells with GFP-encapsulating SM-102 particles. Huh7 hepatocytes (left) and A549 lung epithelial cells (right) were incubated with Cayman's LipidLaunch™ SM-102 LNP (GFP) (Item No. 39320) at an RNA concentration of 150 ng/ml for 24 hours in cell culture media with 10% FBS. Cells were stained with 4 µM Hoechst 33342 (Item No. 15547) and imaged using 465 LED/GFP cube and 365 LED/DAPI cube on a BioTek Cytation 5 imaging plate reader.

LNP Characterization Parameters	
Size	75-150 nm
Polydispersity index (PDI)	<0.2
Encapsulation efficiency (%EE)	>85%
mRNA concentration	Batch specific, 25-100 µg/ml
mRNA/vial	5 µg

Description

LipidLaunch™ SM-102 LNP (GFP) is a solution containing lipid nanoparticles (LNPs) composed of the ionizable cationic amino lipid SM-102 (Item No. 33474), cholesterol (Item No. 9003100), the phospholipid 1,2-distearoyl-*sn*-glycero-3-PC (Item Nos. 15100 | 39189), and the lipid excipient DMG-PEG(2000) (Item No. 33945) at a molar ratio of 50:38.5:10:1.5 and encapsulating mRNA encoding the fluorescent protein GFP. It is intended for proof-of-concept experiments to determine whether SM-102-based LNPs can effectively lead to expression of a protein of interest in a target cell type, either *in vitro* or *in vivo*. GFP has excitation/emission maxima of 488/507 nm, respectively.

Suggested *in vitro* use: Thaw LNPs on ice with occasional gentle swirling (*do not vortex*). Using a gentle pipetting technique, dilute 1:100-1:500 in complete cell culture media (with serum) and add to subconfluent adherent cells in a fluorescence imaging-compatible tissue culture plate. Expression of GFP may be detectable as early as six hours after treatment. Optimal conditions are highly dependent on cell type.

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