

PRODUCT INFORMATION



LipidLaunch™ SM-102 LNP (mCherry)

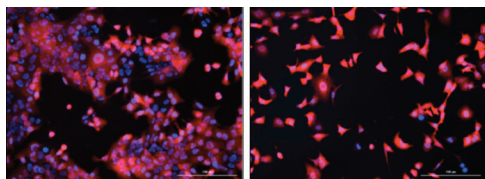
Item No. 39319

Overview and Properties

Storage: -80°C (as supplied)
Stability: ≥6 months
Supplied in: PBS, pH 7.4, with 10% sucrose
Ex./Em. Max: 587/610 nm

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

Images



Transfection of cells with mCherry-encapsulating SM-102 particles. Huh7 hepatocytes (left) and A549 lung epithelial cells (right) were incubated with LipidLaunch™ SM-102 LNP (mCherry) (Item No. 39319) 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 590 LED/Texas Red™ and 365 LED/DAPI cubes 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	2.5 μg

Description

LipidLaunch™ SM-102 LNP (mCherry) 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 mCherry. 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*. mCherry has excitation/emission maxima of 587/610 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 mCherry may be detectable as early as six hours after treatment. Optimal conditions are highly dependent on cell type.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 04/15/2024

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM