

JenKem Technology Products for LNPs (Lipid Nanoparticles)

JenKem®

JenKem Technology provides large scale GMP manufacture of high purity PEG derivatives and small molecule reagents for Lipid Nanoparticles (LNPs) for commercial applications and clinical trials. These products can be manufactured with Purity $\geq 99\%$ by HPLC-CAD.

LNPs are drug delivery systems commonly employed for nucleic acid drugs. This technology has been adopted by pharmaceutical companies in the recent years for COVID-19 vaccine manufacture¹. LNPs are generally believed to combine with the cell membrane through non-covalent affinity and absorbed by endocytosis. After being absorbed by the cell, the mRNA delivered by LNPs are released to the cytoplasm and express the target protein, escaping from endocytosis.

References:

1. Schoenmaker, Linde, et al., mRNA-lipid nanoparticle COVID-19 vaccines: structure and stability, International Journal of Pharmaceutics 601 (2021), doi: 10.1016/j.ijpharm.2021.120586.

PEG Products for LNPs

M-DMG-2000

Methoxy PEG Dimyristoyl-rac-glycerol, MW 2000

M-DTDP-2000

Methoxy PEG Ditetradecylpropylamino, MW 2000

M-DTDA-3000

Methoxy PEG Ditetradecylamino, MW 3000

M-DTDA-5000

Methoxy PEG Ditetradecylamino, MW 5000

M-EPOX-2000

Methoxy PEG Epoxide, MW 2000

M-GLC-2000

Methoxy PEG Glycerol, MW 2000

M-PEG-CM

Methoxy PEG Acetic Acid (of various MW)

and many other PEG derivatives

Small Molecules for LNPs

JK-0315-CA

ALC-0315 analogue

JK-102-CA

SM-102 analogue

N, N-bistetradecylamine Ditetradecylamine

CAS no: 17361-44-3

Other Reagents for LNPs

ALC-0159 (Sample for research purposes only, not for sale)

Methoxy PEG Ditetradecylacetamide, MW 2000, CAS no: 1849616-42-7

ALC-0315 (Sample for research purposes only, not for sale)

[(4-hydroxybutyl)azanediyl]bis(hexane-6,1-diyl)bis(2-hexyldecanoate), CAS no.: 2036272-55-4

SM-102 (Sample for research purposes only, not for sale)

Heptadecan-9-yl 8-[(2-hydroxyethyl)[6-oxo-6-(undecyloxy) hexyl] amino] octanoate, CAS no: 2089251-47-6

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