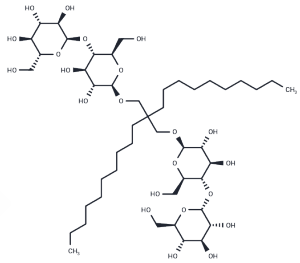
# Data Sheet (Cat.No.T38651)

TargetMol

## Lauryl maltose neopentyl glycol

### Chemical Properties



CAS No. : 1257852-96-2

Formula: C47H88O22

Molecular Weight: 1005.19

Storage: Store at low temperature,Keep away from moisture,
Keep away from direct sunlight
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

### Biological Description

| | |
|---|---|
| Description | Lauryl maltose neopentyl glycol (LMNG) is a detergent that solubilizes and stabilizes membrane proteins by extracting intact proteins from membranes, thereby enhancing the stability of entities such as G protein-coupled receptors and respiratory system complexes. LMNG exhibits a significant solubilizing effect. |
| Targets(IC50) | Others |
| In vitro | At detergent concentrations that do not impede the cell-free reaction, lauryl maltose neopentyl glycol facilitates the production of soluble membrane proteins.[2] |

### Solubility Information

| | |
|---|---|
| Solubility | Methanol: 112.5 mg/mL (111.92 mM),Sonication is recommended.<br>H2O: 90 mg/mL (89.54 mM),Sonication is recommended.<br>DMSO: 250 mg/mL (248.71 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (4.97 mM),Sonication is recommended.<br>*Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.* |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 0.9948 mL | 4.9742 mL | 9.9484 mL |
| 5 mM | 0.199 mL | 0.9948 mL | 1.9897 mL |
| 10 mM | 0.0995 mL | 0.4974 mL | 0.9948 mL |
| 50 mM | 0.0199 mL | 0.0995 mL | 0.199 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Breyton C, et, al. Assemblies of lauryl maltose neopentyl glycol (LMNG) and LMNG-solubilized membrane proteins. Biochim Biophys Acta Biomembr. 2019;1861(5):939-957.
Fogeron ML, et, al. Wheat germ cell-free expression: Two detergents with a low critical micelle concentration allow for production of soluble HCV membrane proteins. Protein Expr Purif. 2015;105:39-46.
Alonso H, et al. Characterization and two-dimensional crystallization of membrane component AlkB of the medium-chain alkane hydroxylase system from Pseudomonas putida GPo1. Appl Environ Microbiol. 2012;78(22): 7946-7953.