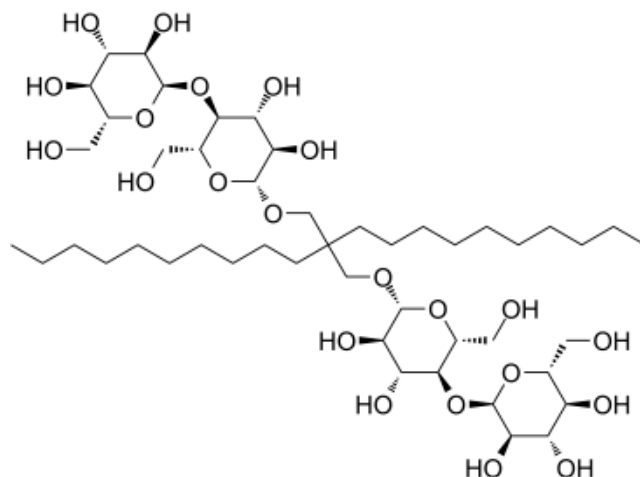


Lauryl maltose neopentyl glycol (LMNG)

Cat # NB-19-0055



Description

Lauryl maltose neopentyl glycol (LMNG) is a detergent that can solubilize and stabilize membrane proteins. Lauryl maltose neopentyl glycol extracts integral membrane proteins from membranes, and improves substantially the stability of various membrane proteins, including G protein-coupled receptors and respiratory complexes[1][2].

In vitro, Lauryl maltose neopentyl glycol can yield essentially soluble membrane proteins at detergent concentrations that do not inhibit the cell-free reaction[2].

Product Information

| | |
|-------------------------|--|
| Codes | NB-19-0055-1G, NB-19-0055-5G, NB-19-0055-25G |
| Sizes | 1g, 5g, 25g |
| Synonyms | 2,2-didecylpropane-1,3-bis-β-D-maltopyranoside, LMNG |
| CAS number | 1257852-96-2 |
| Formula | $C_{47}H_{88}O_{22}$ |
| Molecular Weight | 1005.19 |
| Purity (HPLC) | Min 98% |
| Note | For research use only. |

Description

In vitro :

Preparing stock solutions (Volume of Solvent) :

| Mass | 1 mg | 5 mg | 10 mg |
|---------------|-----------|-----------|-----------|
| Concentration | | | |
| 1 mM | 0.9948 mL | 4.9742 mL | 9.9484 mL |
| 5 mM | 0.1990 mL | 0.9948 mL | 1.9897 mL |
| 10mM | 0.0995 mL | 0.4974 mL | 0.9948 mL |

Methanol : 125 mg/mL (124.35 mM; Need ultrasonic)

DMSO : 57.5 mg/mL (57.20 mM; ultrasonic and warming and heat to 60°C)

Please refer to the solubility information to select the appropriate solvent.

In vitro :

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 5.75 mg/mL (5.72 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE- β -CD in saline)
Solubility: ≥ 5.75 mg/mL (5.72 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 5.75 mg/mL (5.72 mM); Clear solution

References

[1]. Breyton C, et, al. Assemblies of lauryl maltose neopentyl glycol (LMNG) and LMNG-solubilized membrane proteins. *Biochim Biophys Acta Biomembr.* 2019 May 1;1861(5):939-957.

[2]. 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 Jan;105:39-46.

For reference only
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