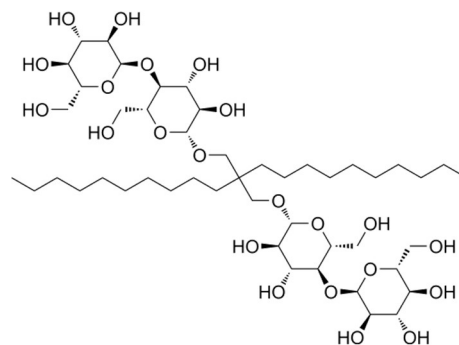


## Lauryl maltose neopentyl glycol #Cat: NB-19-0055

**CAS No.:** 1257852-96-2  
**Molecular Formula:** C<sub>47</sub>H<sub>88</sub>O<sub>22</sub>  
**Molecular Weight:** 1005.19  
**Target:** Others  
**Pathway:** Others  
**Storage:** -20°C, stored under nitrogen, away from moisture  
 \* In solvent: -80°C, 6 months; -20°C, 1 month (stored under nitrogen, away from moisture)



### Solvent & Solubility

**In Vitro**  
 Methanol: 125 mg/mL (124.35 mM; Need ultrasonic)  
 DMSO: 100 mg/mL (99.48 mM; Need ultrasonic)  
 H<sub>2</sub>O: 100 mg/mL (99.48 mM; Need ultrasonic)

	Solvent Mass	1 mg	5 mg	10 mg
	Concentration			
<b>Preparing</b>	<b>1 mM</b>	0.9948 mL	4.9742 mL	9.9484 mL
<b>Stock</b>	<b>5 mM</b>	0.1990 mL	0.9948 mL	1.9897 mL
<b>Solutions</b>	<b>10 mM</b>	0.0995 mL	0.4974 mL	0.9948 mL

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

**In Vivo**

- Add each solvent one by one: PBS  
Solubility: 25 mg/mL (24.87 mM); Clear solution; Need ultrasonic and warming and heat to 60°C
- 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
- 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
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 5.75 mg/mL (5.72 mM); Clear solution

## Biological Activity

**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].  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## 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.

**Caution: Product has not been fully validated for medical applications. For research use only.**