Nonaethylene glycol monododecyl ether

Cat. No.: HY-108294

CAS No.: 3055-99-0

Molecular Formula: $C_{30}H_{62}O_{10}$

Molecular Weight: 582.81

Target: Biochemical Assay Reagents

Pathway: Others

Storage:

Pure form	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month

SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (428.96 mM; Need ultrasonic)
Ethanol : 100 mg/mL (171.58 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.7158 mL	8.5791 mL	17.1583 mL
	5 mM	0.3432 mL	1.7158 mL	3.4316 mL
	10 mM	0.1716 mL	0.8579 mL	1.7158 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (3.57 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (3.57 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (3.57 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Nonaethylene glycol monododecyl ether (Nonaoxyethylene monododecyl ether) is a nonionic surfactant and polyethylene glycol (PEG) detergent that can be used to form initial coalesced O/W emulsion droplets, as well as for protein separation and purification[1][2][3].

In Vitro

Examination of a series of non-ionic PEG detergents with several long-chain E-PDSs from different organisms reveals that in vitro incubations with Nonaethylene glycol monododecyl ether typically gave chain lengths that corresponded to those of

	the isoprenoid moieties in respiratory quinones synthesized in vivo[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Li C, et al. Oil-in-Water Emulsion Templated and Crystallization-Driven Self-Assembly Formation of Poly(l-lactide)-Polyoxyethylene-Poly(l-lactide) Fibers. Langmuir. 2017 Nov 14;33(45):13060-13067.

[2]. Pan JJ, et al. Dependence of the product chain-length on detergents for long-chain E-polyprenyl diphosphate synthases. Biochemistry. 2013 Jul 23;52(29):5002-8.

[3]. Zhang W, et al. Comparison of the different types of surfactants for the effect on activity and structure of soybean peroxidase. Langmuir. 2009 Feb 17;25(4):2363-8.

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