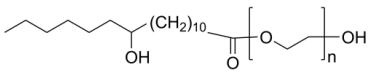
Data Sheet

Product Name:	Polyethylene glycol 12-hydroxystearate
Cat. No.:	CS-0040442
CAS No.:	61909-81-7
Molecular Formula:	$(C_2H_{4O})nC_{18}H_{36}O_3$
Target:	Biochemical Assay Reagents
Pathway:	Others
Solubility:	Ethanol : 100 mg/mL (Need ultrasonic)



BIOLOGICAL ACTIVITY:

Polyethylene glycol 12-hydroxystearate, a Macrogol 15 hydroxy stearate, is a permeability enhancer[1]. ***In Vitro:*** Polyethylene glycol 12-hydroxystearate is used to increase the aqueous solubility of Biopharmaceutical Classification System (BCS) Class 2 and 4 lipophilic molecules. Polyethylene glycol 12-hydroxystearate has shown an enhancement in permeability of medium sized biological drugs across epithelia[1].

PROTOCOL (Extracted from published papers and Only for reference)

Cell Assay: [1]For both **MTS** and **LDH cell** viability assays, cells are seeded at a density of 1×10^4 cells on 96-well plates and cultured for a minimum of 24 h. **Solutol HS-15** (in 25 mM HBSS:HEPES, pH 7.4) solutions are applied at concentrations above and below the critical micelle concentration (CMC) (**0.01 mM** to **20 mM**) and cytotoxicity is determined using the MTS and LDH assays. 25 mM HBSS:HEPES is used as a negative control and Triton-X 100 (3 mM) as a positive control. Following 3 h incubation, the MTS reagent in media and LDH working solution are added to the cells and the cells are incubated for a further 3 h at 37°C[1].

References:

[1]. Shubber S, et al. Mechanism of mucosal permeability enhancement of CriticalSorb (Solutol HS15) investigated in vitro in cell cultures. Pharm Res. 2015 Feb;32(2):516-27.

CAIndexNames:

Poly(oxy-1,2-ethanediyl), α-(12-hydroxy-1-oxooctadecyl)-ω-hydroxy-

SMILES:

CCCCCCC(O)CCCCCCCCCCC(OCCO)=O.[n]

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

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