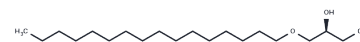


## 1-O-Hexadecyl-sn-glycerol

## Chemical Properties

CAS No. :	506-03-6
Formula:	C19H40O3
Molecular Weight:	316.52
Storage:	Store at low temperature Powder: -20°C for 3 years   In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



## Biological Description

Description	1-O-Hexadecyl-sn-glycerol is a biologically active alkyl glyceryl ether that exhibits protective effects against UVB-induced cellular damage by reducing keratinocyte death, reactive oxygen species (ROS) generation, and prostaglandin E2 synthesis in normal human epidermal keratinocytes (NHEKs). Additionally, at a concentration of 50 $\mu$ M, 1-O-Hexadecyl-sn-glycerol significantly enhances coronary flow and left ventricular developed pressure while reducing malondialdehyde (MDA) formation in an ex vivo rat heart model of ischemia and reperfusion injury, thereby demonstrating both cytoprotective and cardioprotective properties.
Targets(IC50)	Reactive Oxygen Species,PPAR

## Solubility Information

Solubility	Ethanol: 5 mg/mL (15.8 mM),Sonication is recommended. DMSO: 20 mg/mL (63.19 mM),Sonication is recommended. DMF: 16 mg/mL (50.55 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2 mg/mL (6.32 mM),Sonication is recommended. <i>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.</i>

### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	3.1594 mL	15.7968 mL	31.5936 mL
5 mM	0.6319 mL	3.1594 mL	6.3187 mL
10 mM	0.3159 mL	1.5797 mL	3.1594 mL
50 mM	0.0632 mL	0.3159 mL	0.6319 mL

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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

Yokota M, et al. Chimyl Alcohol Suppresses PGE2 Synthesis by Human Epidermal Keratinocytes through the Activation of PPAR- $\gamma$ . J Oleo Sci. 2018 Apr 1;67(4):455-462.

Maulik N, et al. Myocardial salvage by chimyl alcohol: possible role of peroxisomal dysfunction in reperfusion injury. Ann N Y Acad Sci. 1994 Jun 17;723:380-4.

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