

Monoolein

Chemical Properties

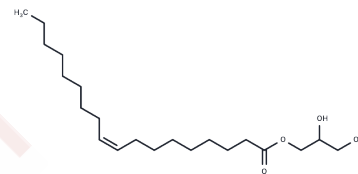
CAS No. : 111-03-5

Formula: C₂₁H₄₀O₄

Molecular Weight: 356.54

Storage: Pure form: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description Monoolein (1-Oleoyl-rac-glycerol) is a surfactant that releases free glycerol and oleic acid upon hydrolysis. Monoolein has been used in liquid crystal studies and research shows that in the presence of monoolein, the penetration of the drug cisplatin (sc-200896) is doubled.

Targets(IC50) Endogenous Metabolite,NO Synthase,Interleukin,TNF

Solubility Information

Solubility DMSO: 115 mg/mL (322.54 mM),Sonication is recommended.
(< 1 mg/ml refers to the product slightly soluble or insoluble)

In vivo Formulation 10% DMSO+90% Saline: 10 mg/mL (28.05 mM),Solution.
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.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8047 mL	14.0237 mL	28.0473 mL
5 mM	0.5609 mL	2.8047 mL	5.6095 mL
10 mM	0.2805 mL	1.4024 mL	2.8047 mL
50 mM	0.0561 mL	0.2805 mL	0.5609 mL

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

Caboi F , Amico G S , Pitzalis P , et al. Addition of hydrophilic and lipophilic compounds of biological relevance to the monoolein/water system. I. Phase behavior[J]. Chemistry and Physics of Lipids, 2001, 109(1):47-62.

Simonetti L D D , Gelfuso G M , Barbosa J C R , et al. Assessment of the percutaneous penetration of cisplatin: The effect of monoolein and the drug skin penetration pathway[J]. European Journal of Pharmaceutics & Biopharmaceutics, 2009, 73(1):0-94.

Pichot R , Spyropoulos F , Norton I T . Mixed-emulsifier stabilised emulsions: Investigation of the effect of monoolein and hydrophilic silica particle mixtures on the stability against coalescence[J]. Journal of Colloid and Interface Science, 2009, 329(2):284-291.

Murgia S , Lampis S , Angius R , et al. Orientation and Specific Interactions of Nucleotides and Nucleolipids Inside Monoolein-Based Liquid Crystals[J]. The Journal of Physical Chemistry B, 2009, 113(27):9205-9215.

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