

Hexane-1,6-diol

Chemical Properties

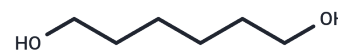
CAS No. : 629-11-8

Formula: C₆H₁₄O₂

Molecular Weight: 118.17

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

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Hexane-1,6-diol is a diol commonly employed to dissolve liquid-liquid phase separation precipitates. It impairs kinase and phosphatase activity and partially inhibits DNA polymerase.
Targets(IC50)	DNA/RNA Synthesis,Phosphatase
In vitro	The monoesters and diesters of hexane-1,6-diol act as substrates in in vitro digestion studies of pancreatic lipase, showing two degradation pathways: hydrolysis and transesterification [1]. Hexane-1,6-diol can be lactonized by alcohol dehydrogenases like AaSDR-1 to produce ε-caprolactone, and its conversion process is affected by the buffer solution [2].

Solubility Information

Solubility	DMSO: 160 mg/mL (1353.98 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 5 mg/mL (42.31 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

	1mg	5mg	10mg
1 mM	8.4624 mL	42.3119 mL	84.6238 mL
5 mM	1.6925 mL	8.4624 mL	16.9248 mL
10 mM	0.8462 mL	4.2312 mL	8.4624 mL
50 mM	0.1692 mL	0.8462 mL	1.6925 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

Mattson FH, et al. Digestion of the mono- and diesters of hexane-1,6-diol by pancreatic lipase. *J Lipid Res.* 1972 Mar;13(2):256-62.

Dithugoe CD, et al. An Alcohol Dehydrogenase from the Short-Chain Dehydrogenase/Reductase Family of Enzymes for the Lactonization of Hexane-1,6-diol. *Chembiochem.* 2019 Jan 2;20(1):96-102.

Diab H. Hydrogenlysis and production of 1, 6-hexandiol using cuzn catalyst. *Politecnico di Torino*, 2018.

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