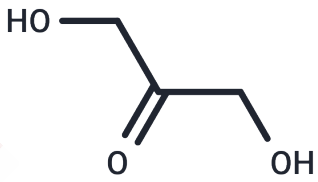
Data Sheet (Cat.No.T41122)

TargetMol

1,3-Dihydroxyacetone

Chemical Properties



CAS No. : 96-26-4

Formula: C3H6O3

Molecular Weight: 90.08

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	1,3-Dihydroxyacetone is the main active ingredient in sunscreen tanning skin care preparations, an important precursor for the synthesis of a variety of fine chemicals, and a food additive that can be produced on an industrial scale by microbial fermentation on Gluconobacter oxydans. 1,3-Dihydroxyacetone has the ability to increase cAMP levels. 1,3-Dihydroxyacetone has the ability to increase cAMP levels.
Targets(IC50)	Endogenous Metabolite,Antibacterial,Antibiotic

Solubility Information

Solubility	DMSO: 50 mg/mL (555.06 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: 2 mg/mL (22.2 mM),Sonication is recommended. *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	11.1012 mL	55.5062 mL	111.0124 mL
5 mM	2.2202 mL	11.1012 mL	22.2025 mL
10 mM	1.1101 mL	5.5506 mL	11.1012 mL
50 mM	0.222 mL	1.1101 mL	2.2202 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

Zhi Zheng, et al. Novel Process for 1,3-Dihydroxyacetone Production from Glycerol. 1. Technological Feasibility Study and Process Design. Ind. Eng. Chem. Res. 2012, 51, 9, 3715-3721.
Zhou X, et al. Simultaneous Bioconversion of Xylose and Glycerol to Xylonic Acid and 1,3-Dihydroxyacetone from the Mixture of Pre-Hydrolysates and Ethanol-Fermented Waste Liquid by Gluconobacter oxydans. Appl Biochem Biotechnol. 2016;178(1):1-8.