Data Sheet (Cat.No.T19299)

TargetMol

DTE

Chemical Properties

CAS No. : 6892-68-8

Formula: C4H10O2S2

Molecular Weight: 154.251

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	DTE (Dithioerythritol) is a sulfur-containing sugar derivative of the four-carbon monosaccharide erythrose and is an epimer of dithiothreitol (DTT), Dithioerythritol (DTE) is commonly used as a reducing agent in biochemical and molecular biology experiments to maintain thiol groups in a reduced state, stabilize protein structure, and support redox-sensitive enzymatic and structural studies.
Targets(IC50)	Others
In vivo	In a mouse model of bile duct ligation (BDL)-induced cholestasis, administration of DTE in drinking water (0.25%-1% v/v) reduced hepatic and renal damage. The treatment was associated with a reduction in Oxidative Stress markers and the amelioration of physiological symptoms, including hepatomegaly and splenomegaly [3].

Solubility Information

Solubility	H2O: 40.00 mg/mL (259.32 mM),Sonication is recommended. DMSO: 80.00 mg/mL (518.64 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	6.483 mL	32.4149 mL	64.8298 mL
5 mM	1.2966 mL	6.483 mL	12.966 mL
10 mM	0.6483 mL	3.2415 mL	6.483 mL
50 mM	0.1297 mL	0.6483 mL	1.2966 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

Heidari R, et al. , Dithiothreitol supplementation mitigates hepatic and renal injury in bile duct ligated mice: Potential application in the treatment of cholestasis-associated complications. Biomed Pharmacother. 2018 Mar; 99:1022-1032.

Lo S, et al. , Dithioerythritol (DTE) prevents inhibitory effects of triphenyltin (TPT) on the key enzymes of the human sex steroid hormone metabolism. J Steroid Biochem Mol Biol. 2003 Apr;84(5):569-76.

Bucak MN, et al. , Effects of curcumin and dithioerythritol on frozen-thawed bovine semen. Andrologia. 2012 May; 44 Suppl 1:102-9.

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