

## **Product** Data Sheet

## L-Dithiothreitol

Cat. No.: HY-15917A CAS No.: 16096-97-2 Molecular Formula:  $C_4H_{10}O_2S_2$  Molecular Weight: 154.25

Target: Biochemical Assay Reagents

Pathway: Others

Storage: Powder -20°C 3 years

In solvent -80°C 6 months

-20°C 1 month

## **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 100 mg/mL (648.30 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	6.4830 mL	32.4149 mL	64.8298 mL
	5 mM	1.2966 mL	6.4830 mL	12.9660 mL
	10 mM	0.6483 mL	3.2415 mL	6.4830 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (16.21 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE- $\beta$ -CD in saline) Solubility:  $\geq$  2.5 mg/mL (16.21 mM); Clear solution

## **BIOLOGICAL ACTIVITY**

Description	L-Dithiothreitol (DTT) is a reducing agent commonly used in various biochemical applications to break disulfide bonds in proteins, thereby denaturing proteins or preventing the formation of unwanted aggregates. DTT has a unique chemical property that cleaves the sulfur-sulfur bond in the disulfide bond to form a sulfhydryl group. This makes it a useful tool for protein purification, enzyme assays, and protein structure studies.
In Vitro	L-Dithiothreitol is a biochemical reagent that can be used as a biological material or organic compound for life science related research.  MCE has not independently confirmed the accuracy of these methods. They are for reference only.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$ 

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