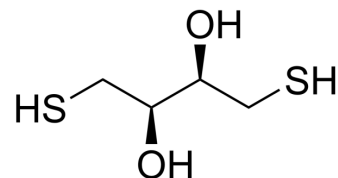


## L-Dithiothreitol

<b>Cat. No.:</b>	HY-15917A		
<b>CAS No.:</b>	16096-97-2		
<b>Molecular Formula:</b>	C <sub>4</sub> H <sub>10</sub> O <sub>2</sub> S <sub>2</sub>		
<b>Molecular Weight:</b>	154.25		
<b>Target:</b>	Biochemical Assay Reagents		
<b>Pathway:</b>	Others		
<b>Storage:</b>	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : ≥ 100 mg/mL (648.30 mM)  
 DMSO : 100 mg/mL (648.30 mM; Need ultrasonic)  
 \* "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	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

- 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
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
 Solubility: ≥ 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.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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