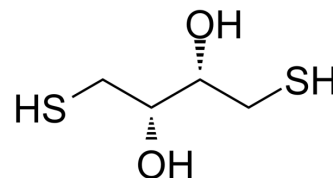


DL-dithiothreitol

Cat. No.:	HY-15917
CAS No.:	3483-12-3
Molecular Formula:	C ₄ H ₁₀ O ₂ S ₂
Molecular Weight:	154.25
Target:	Biochemical Assay Reagents
Pathway:	Others
Storage:	4°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

H₂O : ≥ 200 mg/mL (1296.60 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: PBS
Solubility: 100 mg/mL (648.30 mM); Clear solution; Need ultrasonic
- 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
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (16.21 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

DL-dithiothreitol (DTT) is a reducing agent. DL-dithiothreitol forms a stable six-membered ring with an internal disulfide bond once oxidized.

In Vitro

DL-dithiothreitol is widely used in biochemistry works to reduce disulfide bridges, protect biomolecules, in sample

preparation, and to denature proteins before electrophoresis analysis (SDS-PAGE).
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- EMBO Mol Med. 2022 May 25;e15373.
- Cell Death Dis. 2024 Feb 20;15(2):154.
- Cell Death Dis. 2022 Oct 8;13(10):860.
- Cell Rep. 2023 Apr 14;42(4):112403.
- Free Radic Biol Med. 2024 Jan 17:S0891-5849(24)00025-X.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Dithiothreitol, From Wikipedia

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

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