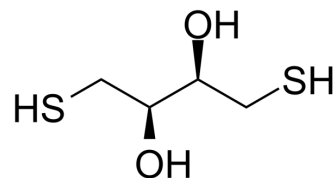


DL-dithiothreitol

| | |
|---------------------------|--|
| Cat. No.: | HY-15917 |
| CAS No.: | 3483-12-3 |
| Molecular Formula: | C ₄ H ₁₀ O ₂ S ₂ |
| Molecular Weight: | 154.25 |
| Target: | Others |
| 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.

| 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

- 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.

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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