

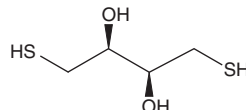
# PRODUCT INFORMATION



## DL-Dithiothreitol

Item No. 35885

**CAS Registry No.:** 3483-12-3  
**Formal Name:** *rel*-1,4-dimercapto-2R,3R-butanediol  
**Synonyms:** DTT, Cleland's Reagent, WR 34678  
**MF:** C<sub>4</sub>H<sub>10</sub>O<sub>2</sub>S<sub>2</sub>  
**FW:** 154.3  
**Purity:** ≥98%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

DL-Dithiothreitol is supplied as a solid. A stock solution may be made by dissolving the DL-dithiothreitol in the solvent of choice, which should be purged with an inert gas. DL-Dithiothreitol is soluble in DMSO and acetonitrile. It is also soluble in water. We do not recommend storing the aqueous solution for more than one day.

### Description

DL-Dithiothreitol is a reducing agent.<sup>1,2</sup> It has been used to stabilize thiols in a reduced state in various applications, including protein purification and enzymatic assays.<sup>3,4</sup>

### References

1. Cleland, W.W. Dithiothreitol, a new protective reagent for SH groups. *Biochemistry* **3**, 480-482 (1964).
2. Muller, T. and Winter, D. Systematic evaluation of protein reduction and alkylation reveals massive unspecific side effects by iodine-containing reagents. *Mol. Cell Proteomics* **16**(7), 1173-1187 (2017).
3. Getz, E.B., Xiao, M., Chakrabarty, T., *et al.* A comparison between the sulfhydryl reductants tris(2-carboxyethyl)phosphine and dithiothreitol for use in protein biochemistry. *Anal. Biochem.* **273**(1), 73-80 (1999).
4. Avdic, V., Zhang, P., Lanouette, S., *et al.* Structural and biochemical insights into MLL1 core complex assembly. *Structure* **19**(1), 101-108 (2011).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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