

## Certificate of Analysis

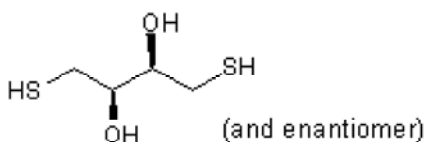
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**Product Name:** DL-Dithiothreitol  
**CAS Number:** 3483-12-3  
**IUPAC Name:** *threo*-1,4-Dimercapto-2,3-butanediol

**Catalog No.:** 3154      **Batch No.:** 9  
**EC Number:** 222-468-7

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>4</sub>H<sub>10</sub>O<sub>2</sub>S<sub>2</sub>  
**Batch Molecular Weight:** 154.25  
**Physical Appearance:** Off-white solid  
**Solubility:** water to 100 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**Assay:** >99.5% by Iodometric titration

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Description:**

Reagent for maintaining SH groups in the reduced state.

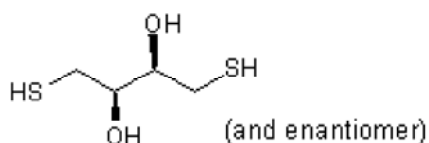
**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>4</sub>H<sub>10</sub>O<sub>2</sub>S<sub>2</sub>

Batch Molecular Weight: 154.25

Physical Appearance: Off-white solid

**Batch Molecular Structure:**



**Storage:** Store at +4°C

**Solubility & Usage Info:**

water to 100 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Jabusch *et al*** (1978) The effect of thiodiglycol and dithiothreitol on the alkaline hydrolysis products of certain amino acid phenylthiohydantoin. *Anal.Biochem.* **91** 532. PMID: 9762140.

**Rüegg and Rudinger** (1977) Reductive cleavage of cystine disulfides with tributylphosphine. *Methods Enzymol.* **47** 111. PMID: 927167.

**Sears *et al*** (1977) Relative susceptibilities of the interchain disulfides of an immunoglobulin G molecule to reduction by dithiothreitol. *Biochemistry* **16** 2031. PMID: 403938.

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