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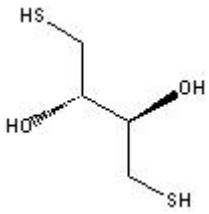
TECHNICAL INFORMATION

Catalog Number: 100598, 194820, 808376
Dithioerythritol

Structure:



Molecular Formula: $C_4H_{10}O_2S_2$

Molecular Weight: 154.2

CAS # : 6892-68-8

Synonyms: DTE; Cleland's reagent; 2,3-Dihydroxybutane-1,4-dithiol; Erythro-2,3-dihydroxy-1,4-butanedithiol; Erythro-1,4-dimercapto-2,3-butanediol

Physical Appearance: White crystalline powder

Solubility: Soluble in water (50 mg/ml - clear to slightly hazy, colorless solution). MP Biomedicals recommends to make solutions fresh for each use.

Description: A reagent for maintaining thiols in the reduced state; prevents oxidation of sulfhydryl-containing proteins during SDS-polyacrylamide gel electrophoresis. Also quantitatively reduces disulfides.[1] Used to prepare a matrix for fast-atom bombardment mass spectroscopy.

Other reported uses for DTE are:

– Has also been used in 2-D electrophoretic analysis of proteins and immunoglobulins.[7,9,10]
– Used in mitochondrial studies to block the opening of the transition pore and to study permeability transition.[3,13]
– Glial and neuronal glycine transporters have been investigated using various sulfhydryl reagents, including DTE.[11]
– Has been utilized in a mass spectrometric mapping study of disulfide bonds in recombinant human interleukin-13.[14]
– Inorganic complexes that contain DTE as a ligand have been synthesized.[5]
– DTE has been used to prepare 5'-thiol-terminated oligodeoxynucleotides.[4]

Availability:

Catalog Number	Description	Size
100598	Dithioerythritol	100 mg 500 mg 1 gm 5 gm 10 gm 25 gm 100 gm

194820	Dithioerythritol, molecular biology reagent	250 mg 1 g 5 g 10 gm 25 gm 50 gm
808376	Dithioerythritol, electrophoresis grade	5 gm

Reference:

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