Data Sheet (Cat.No.T4918)



DL-Glyceraldehyde

Chemical Properties

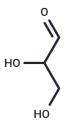
CAS No.: 56-82-6

Formula: C3H6O3

Molecular Weight: 90.08

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	DL-Glyceraldehyde (Glyceric aldehyde) is produced from the action of the enzyme glyceraldehyde dehydrogenase, which converts glycerol to glyceraldehyde using NADP as a cofactor. When present at sufficiently high levels, DL-Glyceraldehyde can be a cytotoxin and a mutagen. A cytotoxin is a compound that kills cells. A mutagen is a compound that causes mutations in DNA. DL-Glyceraldehyde is a highly reactive compound that can modify and cross-link proteins. DL-Glyceraldehyde modified proteins appear to be cytotoxic, depress intracellular glutathione levels, and induce reactive oxygen species (ROS) production (PMID: 14981296). DL-Glyceraldehyde has been shown to cause chromosome damage to human cells in culture and is mutagenic in the Ames bacterial test.
Targets(IC50)	Reductase

Solubility Information

Solubility	DMSO: 4.4 mg/mL (48.85 mM),
	(< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg	
1 mM	11.1012 mL	55.5062 mL	111.0124 mL	
5 mM	2.2202 mL	11.1012 mL	22.2025 mL	
10 mM	1.1101 mL	5.5506 mL	11.1012 mL	
50 mM	0.222 mL	1.1101 mL	2.2202 mL	

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

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Reference

Gugliucci A . A practical method to study functional impairment of proteins by glycation and effects of inhibitors using current coagulation/fibrinolysis reagent kits[J]. Clinical Biochemistry, 2003, 36(2):155-158.

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