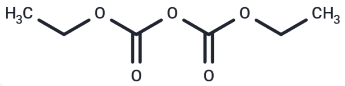
Data Sheet (Cat.No.T65118)

TargetMol

DEPC

Chemical Properties



CAS No. : 1609-47-8

Formula: C6H10O5

Molecular Weight: 162.14

Storage: Pure form: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	DEPC (Diethyl pyrocarbonate) is a potent and irreversible RNase inhibitor containing histidine residues.DEPC can be used to prevent RNA enzyme degradation by modifying histidine residues with carboxylation resulting in enzyme inactivation. DEPC showed inhibitory effect on the central chemical sensitivity of rabbits. DEPC modified His, Tyr, Ser and Thr residues.
Targets(IC50)	Others
In vivo	Insulin binding to rat liver plasma membranes is inhibited in a time- and dose-dependent fashion by prior treatment of membranes with the histidine-specific reagent diethyl pyrocarbonate.[1]

Solubility Information

Solubility	DMSO: 55 mg/mL (339.21 mM),Sonication is recommended. H2O: 30 mg/mL (185.03 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 5 mg/mL (30.84 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	6.1675 mL	30.8375 mL	61.6751 mL
5 mM	1.2335 mL	6.1675 mL	12.335 mL
10 mM	0.6168 mL	3.0838 mL	6.1675 mL
50 mM	0.1234 mL	0.6168 mL	1.2335 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Pilch PF. Modification of the insulin receptor by diethyl pyrocarbonate: effect on insulin binding and action. Biochemistry. 1982;21(22):5638-5644.
Daron HH, et al. Inactivation of dihydrofolate reductase from Lactobacillus casei by diethyl pyrocarbonate. Biochemistry. 1982;21(4):737-741.