

α -Lipoic Acid

Chemical Properties

CAS No. : 1077-28-7

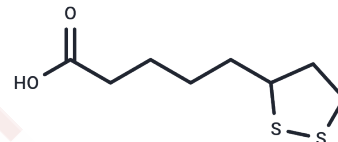
Formula: C₈H₁₄O₂S₂

Molecular Weight: 206.33

Storage: Keep away from direct sunlight, Store at low temperature, Store under nitrogen

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

Actual storage temperature shall be subject to the COA.



Biological Description

Description	α -Lipoic Acid (DL- α -Lipoic acid) an octanoic acid bridged with two sulfurs so that it is sometimes also called a pentanoic acid in some naming schemes. It is biosynthesized by cleavage of LINOLEIC ACID and is a coenzyme of oxoglutarate dehydrogenase (KETOGLUTARATE DEHYDROGENASE COMPLEX). It is used in DIETARY SUPPLEMENTS.
Targets(IC50)	Apoptosis, NF- κ B, HIV Protease, Mitochondrial Metabolism, Endogenous Metabolite

Solubility Information

Solubility	DMSO: 250 mg/mL (1211.65 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: 2 mg/mL (9.69 mM), Sonication is recommended. 10% DMSO+90% Saline: 10 mg/mL (48.47 mM), Suspension. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.8466 mL	24.233 mL	48.466 mL
5 mM	0.9693 mL	4.8466 mL	9.6932 mL
10 mM	0.4847 mL	2.4233 mL	4.8466 mL
50 mM	0.0969 mL	0.4847 mL	0.9693 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

Ning-Ping Foo, et al. Toxicology Volume 282, Issues 1–2, 28 March 2011, Pages 39–46

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