

D-Pantothenic acid

Chemical Properties

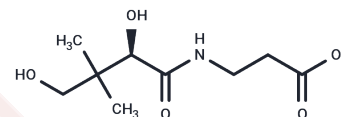
CAS No. : 79-83-4

Formula: C₉H₁₇NO₅

Molecular Weight: 219.24

Storage: 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	D-Pantothenic acid (vitamin B5) is a water-soluble vitamin ubiquitously found in plants and animal tissues with an antioxidant property. D-Pantothenic acid is a component of coenzyme A (CoA) and a part of the vitamin B2 complex. D-Pantothenic acid is a growth factor and is essential for various metabolic functions, including the metabolism of carbohydrates, proteins, and fatty acids. This vitamin is also involved in the synthesis of cholesterol, lipids, neurotransmitters, steroid hormones, and hemoglobin.
Targets(IC50)	Others,Endogenous Metabolite

Solubility Information

Solubility	DMSO: 255 mg/mL (1163.11 mM),Sonication is recommended. H ₂ O: 50 mg/mL (228.06 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 1 mg/mL (4.56 mM),Solution. <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	4.5612 mL	22.8061 mL	45.6121 mL
5 mM	0.9122 mL	4.5612 mL	9.1224 mL
10 mM	0.4561 mL	2.2806 mL	4.5612 mL
50 mM	0.0912 mL	0.4561 mL	0.9122 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

Slyshenkov VS, et al. FEBS Lett,2004, 569(1-3), 169-172.

Wojtczak L, et al. Biofactors,2003, 17(1-4), 61-73.

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