

Homogentisic acid

Chemical Properties

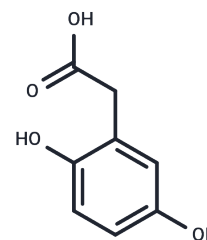
CAS No. : 451-13-8

Formula: C₈H₈O₄

Molecular Weight: 168.15

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	1. Homogentisic acid (2,5-dihydroxyphenylacetic acid) shows interesting antioxidant and antiradical activities, and protective effect against thermal-cholesterol degradation, comparable to those of well known antioxidants. 2. Homogentisic acid is the primary precursor of melanin synthesis in <i>Vibrio cholerae</i> , a <i>Hyphomonas</i> strain, and <i>Shewanella colwelliana</i> . 3. A derivative of homogentisic acid which inhibits Pfnek-1 with an IC(5) around 1.8 μM, this product is moderately active in vitro against a FcB1 P. falciparum strain (IC(5) = 12 μM).
Targets(IC50)	Antioxidant, Endogenous Metabolite

Solubility Information

Solubility	DMSO: 247.5 mg/mL (1471.9 mM), Sonication is recommended. Chloroform, Dichloromethane, Ethyl Acetate, Acetone, etc.: Soluble, (< 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 (11.89 mM), Sonication is recommended. <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	5.9471 mL	29.7354 mL	59.4707 mL
5 mM	1.1894 mL	5.9471 mL	11.8941 mL
10 mM	0.5947 mL	2.9735 mL	5.9471 mL
50 mM	0.1189 mL	0.5947 mL	1.1894 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

Hughes A T , Milan A M , Davison A S , et al. Serum markers in alkaptonuria: simultaneous analysis of homogentisic acid, tyrosine and nitisinone by liquid chromatography tandem mass spectrometry[J]. Annals of Clinical Biochemistry: An international journal of biochemistry and laboratory medicine, 2015:0004563215571969.

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