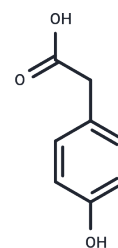


4-hydroxyphenylacetic acid

Chemical Properties

CAS No. :	156-38-7
Formula:	C ₈ H ₈ O ₃
Molecular Weight:	152.15
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	4-hydroxyphenylacetic acid (parahydroxy phenylacetate) is a major microbiota-derived metabolite of polyphenols. 4-hydroxyphenylacetic acid(p-Hydroxyphenylacetic acid) is involved in the antioxidative action. 4-hydroxyphenylacetic acid(p-Hydroxyphenylacetic acid) induces expression of Nrf2.
Targets(IC50)	Antioxidant,Nrf2,Endogenous Metabolite

Solubility Information

Solubility	DMSO: 163.33 mg/mL (1073.48 mM),Sonication is recommended. H ₂ O: 100 mg/mL (657.25 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 (13.14 mM),Sonication is recommended. 10% DMSO+90% Saline: 10 mg/mL (65.72 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	6.5725 mL	32.8623 mL	65.7246 mL
5 mM	1.3145 mL	6.5725 mL	13.1449 mL
10 mM	0.6572 mL	3.2862 mL	6.5725 mL
50 mM	0.1314 mL	0.6572 mL	1.3145 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

Zhao H, et al. 4-Hydroxyphenylacetic Acid Prevents Acute APAP-Induced Liver Injury by Increasing Phase II and Antioxidant Enzymes in Mice. *Front Pharmacol.* 2018 Jun 19;9:653.

An S, Yao Y, Wu J, et al. Gut-derived 4-hydroxyphenylacetic acid attenuates sepsis-induced acute kidney injury by upregulating ARC to inhibit necroptosis. *Biochimica et Biophysica Acta (BBA)-Molecular Basis of Disease.* 2024, 1870 (1): 166876.

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