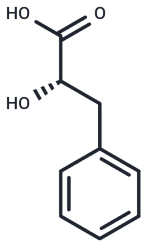
Data Sheet (Cat.No.T5290)

TargetMol

(S)-2-Hydroxy-3-phenylpropanoic acid

Chemical Properties



CAS No. : 20312-36-1

Formula: C9H10O3

Molecular Weight: 166.17

Storage: Keep away from moisture
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	(S)-2-Hydroxy-3-phenylpropanoic acid (L-(−)-3-Phenyllactic acid) is a chiral aromatic compound involved in phenylalanine metabolism. It is likely produced from phenylpyruvate via lactate dehydrogenase. The D-form is derived from bacterial sources, while the L-form is endogenous. Phenyllactate levels are normally very low in blood or urine, but high levels indicate phenylketonuria (PKU) and hyperphenylalaninemia (HPA). PKU is due to a deficiency of phenylalanine hydroxylase (PAH), causing phenylalanine to convert to phenylpyruvic acid rather than tyrosine.
Targets(IC50)	Endogenous Metabolite,Antifungal

Solubility Information

Solubility	DMSO: 250 mg/mL (1504.48 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 (12.04 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	6.0179 mL	30.0897 mL	60.1793 mL
5 mM	1.2036 mL	6.0179 mL	12.0359 mL
10 mM	0.6018 mL	3.009 mL	6.0179 mL
50 mM	0.1204 mL	0.6018 mL	1.2036 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

Tekewe A, et al. Development and validation of HPLC method for the resolution of drug intermediates: DL-3-Phenyllactic acid, DL-O-acetyl-3-phenyllactic acid and (+/-)-mexiletine acetamide enantiomers. Talanta. 2008 Mar 15;75(1):239-45.