

(R)-3-Hydroxybutanoic acid sodium

Chemical Properties

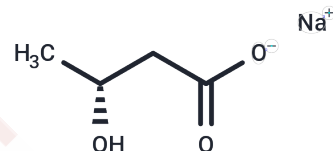
CAS No. : 13613-65-5

Formula: C₄H₇NaO₃

Molecular Weight: 126.09

Storage: Keep away from moisture, 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	(R)-3-Hydroxybutanoic acid sodium ((R)-3-Hydroxybutyric acid) is a chiral precursor that can be used to synthesize biodegradable PHB and its copolyesters. (R)-3-Hydroxybutanoic acid sodium can be used as a nutrient in plants.
Targets(IC50)	Endogenous Metabolite

Solubility Information

Solubility	H ₂ O: 80 mg/mL (634.47 mM), Sonication is recommended. DMSO: 40 mg/mL (317.23 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 (15.86 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	7.9308 mL	39.6542 mL	79.3084 mL
5 mM	1.5862 mL	7.9308 mL	15.8617 mL
10 mM	0.7931 mL	3.9654 mL	7.9308 mL
50 mM	0.1586 mL	0.7931 mL	1.5862 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

Das S, et al. Proof for a nonproteinaceous calcium-selective channel in Escherichia coli by total synthesis from (R)-3-hydroxybutanoic acid and inorganic polyphosphate. Proc Natl Acad Sci U S A. 1997 Aug 19;94(17):9075-9.

Pavlov E, et al. A high-conductance mode of a poly-3-hydroxybutyrate/calcium/polyphosphate channel isolated from competent Escherichia coli cells. FEBS Lett. 2005 Sep 26;579(23):5187-92.

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