

## (R)-3-Hydroxyisobutyric acid

## Chemical Properties

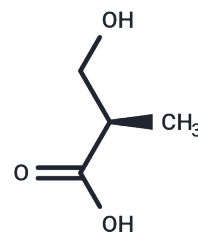
CAS No. : 1910-47-0

Formula: C<sub>4</sub>H<sub>8</sub>O<sub>3</sub>

Molecular Weight: 104.1

Storage: Keep away from moisture, Store at low temperature  
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-Hydroxyisobutyric acid is a chiral organic compound and a metabolite derived from the amino acid L-valine and thymine catabolism. (R)-3-Hydroxyisobutyric acid is classified as a beta hydroxy acid and functions as a key intermediate in metabolic pathways involving L-valine and thymine. Elevated levels of (R)-3-Hydroxyisobutyric acid, also known as 3-HIBA, may serve as a diagnostic biomarker for severe inherited metabolic disorders, including 3-hydroxyisobutyric aciduria.
Targets(IC50)	Others

## Solubility Information

Solubility	H <sub>2</sub> O: 100 mg/mL (960.61 mM), Sonication is recommended. DMSO: 100 mg/mL (960.61 mM), Sonication is recommended. ( < 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	9.6061 mL	48.0307 mL	96.0615 mL
5 mM	1.9212 mL	9.6061 mL	19.2123 mL
10 mM	0.9606 mL	4.8031 mL	9.6061 mL
50 mM	0.1921 mL	0.9606 mL	1.9212 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

Podebrad F, et al. Stereodifferentiation of 3-hydroxyisobutyric- and 3-aminoisobutyric acid in human urine by enantioselective multidimensional capillary gas chromatography-mass spectrometry. Clin Chim Acta. 2000 Feb 25; 292(1-2):93-105.

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