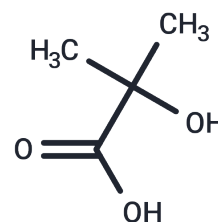


2-Hydroxyisobutyric acid

Chemical Properties

CAS No. :	594-61-6
Formula:	C ₄ H ₈ O ₃
Molecular Weight:	104.1
Storage:	Keep away from moisture Pure form: -20°C for 3 years In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	2-Hydroxyisobutyric acid (α -Hydroxyisobutyric acid) is a metabolite of methyl tert-butyl ether (MTBE). MTBE may be obtained through environmental exposure. MTBE is rapidly eliminated from the body, mainly through expired air as the unchanged compound. MTBE is to some extent metabolised to t-butyl alcohol (TBA) and formaldehyde and oxidised to 2-methyl-1,2-propanediol and α -hydroxy isobutyric acid. 2-Hydroxyisobutyric acid has been used as an arial bactericide.
Targets(IC50)	Endogenous Metabolite
In vivo	Glycerol can induce acute renal failure in rat models. Acute renal failure induced by glycerol or uranyl nitrate reduces the hepato-biliary transport of some drugs, modulates the distribution of drugs into the central nervous system and affects the activity of various hepatic microsomal enzymes.

Solubility Information

Solubility	DMSO: 250 mg/mL (2401.54 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 (19.21 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	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

Guneral F , , Bachmann C , . Age-related reference values for urinary organic acids in a healthy Turkish pediatric population[J]. Clinical Chemistry, 1994, 40(6):862-6.

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