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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
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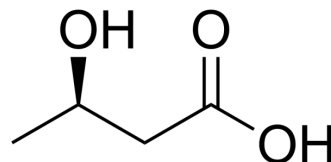
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(R)-3-Hydroxybutanoic acid

Cat. No.:	HY-W051723		
CAS No.:	625-72-9		
Molecular Formula:	C ₄ H ₈ O ₃		
Molecular Weight:	104.1		
Target:	Endogenous Metabolite		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Pure form	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 100 mg/mL (960.61 mM; Need ultrasonic)			
	DMSO : 100 mg/mL (960.61 mM; Need ultrasonic)			
		Solvent Concentration	Mass	
			1 mg	5 mg
			10 mg	
Preparing Stock Solutions	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
	Please refer to the solubility information to select the appropriate solvent.			
In Vivo	1. Add each solvent one by one: PBS Solubility: 100 mg/mL (960.61 mM); Clear solution; Need ultrasonic			

BIOLOGICAL ACTIVITY

Description	(R)-3-Hydroxybutanoic acid is a metabolite, and converted from acetoacetic acid catalyzed by 3-hydroxybutyrate dehydrogenase. (R)-3-Hydroxybutanoic acid has applications as a nutrition source and as a precursor for vitamins, antibiotics and pheromones ^{[1][2]} .	
IC₅₀ & Target	Microbial Metabolite	Human Endogenous Metabolite
In Vitro	(R)-3-Hydroxybutanoic acid (D-3-Hydroxybutyric acid) is a metabolite, and converted from acetoacetic acid. Enhanced hepatic fatty acid oxidation results in the increased production of acetoacetic acid which is in turn converted to (R)-3-Hydroxybutanoic acid by a reaction catalyzed by 3-hydroxybutyrate dehydrogenase ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

CUSTOMER VALIDATION

- J Nanobiotechnology. 2022 Mar 9;20(1):120.
- Cell Rep. 2022 Dec 20;41(12):111847.
- Mol Med Rep. July 15, 2022.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. Ide T. Enzymatic-HPLC method to analyze D-3-hydroxybutyric acid in rat serum. Biosci Biotechnol Biochem. 2010;74(8):1578-82.
- [2]. Mateusz Biernacki, et al. Production of (R)-3-hydroxybutyric acid by *Arxula adenivorans*. AMB Express. 2017 Dec;7(1):4.
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Caution: Product has not been fully validated for medical applications. For research use only.

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