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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
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- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

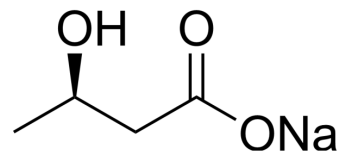
mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

(R)-3-Hydroxybutanoic acid sodium

Cat. No.:	HY-W015851
CAS No.:	13613-65-5
Molecular Formula:	C ₄ H ₇ NaO ₃
Molecular Weight:	126.09
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 100 mg/mL (793.08 mM; Need ultrasonic)					
	DMSO : 50 mg/mL (396.54 mM; ultrasonic and warming and heat to 60°C)					
		Solvent Concentration	Mass			
	Preparing Stock Solutions			1 mg	5 mg	10 mg
			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		
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 (793.08 mM); Clear solution; Need ultrasonic					
	2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (19.83 mM); Clear solution					
	3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (19.83 mM); Clear solution					
	4. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (19.83 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	(R)-3-Hydroxybutanoic acid sodium ((R)-3-Hydroxybutyric acid) is a metabolite converted from acetoacetic acid catalyzed by 3-hydroxybutyrate dehydrogenase. (R)-3-Hydroxybutanoic acid sodium can function as a nutrition source, and as a precursor for vitamins, antibiotics and pheromones ^{[1][2]} .			
IC₅₀ & Target	Microbial Metabolite	Microbial Metabolite	Human Endogenous Metabolite	Human Endogenous Metabolite

In Vitro

(R)-3-Hydroxybutanoic acid sodium is a metabolite 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 sodium 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 adeninivorans*. AMB Express. 2017 Dec;7(1):4.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA