



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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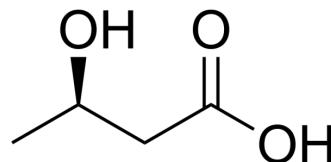
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## (R)-3-Hydroxybutanoic acid

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



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	H <sub>2</sub> O : 100 mg/mL (960.61 mM; Need ultrasonic)			
	DMSO : 100 mg/mL (960.61 mM; Need ultrasonic)			
		<b>Solvent</b>	<b>Mass</b>	
		<b>Concentration</b>		
	<b>Preparing Stock Solutions</b>		<b>1 mg</b>	<b>5 mg</b>
	<b>1 mM</b>	9.6061 mL	48.0307 mL	96.0615 mL
	<b>5 mM</b>	1.9212 mL	9.6061 mL	19.2123 mL
	<b>10 mM</b>	0.9606 mL	4.8031 mL	9.6061 mL
Please refer to the solubility information to select the appropriate solvent.				
<b>In Vivo</b>	1. Add each solvent one by one: PBS Solubility: 100 mg/mL (960.61 mM); Clear solution; Need ultrasonic			

### BIOLOGICAL ACTIVITY

<b>Description</b>	(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 <sup>[1][2]</sup> .	
<b>IC<sub>50</sub> &amp; Target</b>	Microbial Metabolite	Human Endogenous Metabolite
<b>In Vitro</b>	(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 <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

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## 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](http://www.MedChemExpress.com)

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

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