

Product Data Sheet

(2S)-2-[[(tert-Butoxy)carbonyl](methyl)amino]-3-methylbutanoic acid

Cat. No.: HY-41051

CAS No.: 45170-31-8Molecular Formula: $C_{11}H_{21}NO_4$ Molecular Weight: 231.29

Target: Amino Acid Derivatives

Pathway: Others

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

DMSO: 100 mg/mL (432.36 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	4.3236 mL	21.6179 mL	43.2358 mL
	5 mM	0.8647 mL	4.3236 mL	8.6472 mL
	10 mM	0.4324 mL	2.1618 mL	4.3236 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (10.81 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE- β -CD in saline) Solubility: \geq 2.5 mg/mL (10.81 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (10.81 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

(2S)-2-[[(tert-Butoxy)carbonyl](methyl)amino]-3-methylbutanoic acid is a valine derivative [1].

In Vitro

Amino acids and amino acid derivatives have been commercially used as ergogenic supplements. They influence the secretion of anabolic hormones, supply of fuel during exercise, mental performance during stress related tasks and prevent exercise induced muscle damage. They are recognized to be beneficial as ergogenic dietary substances^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES					
[1]. Luckose F, et al. Effects of amino	acid derivatives on physica	l, mental, and physiological a	ctivities. Crit Rev Food Sci Nutr. 2	015;55(13):1793-1144.	
	ution: Product has not b : 609-228-6898	een fully validated for med Fax: 609-228-5909	lical applications. For researd E-mail: tech@MedChemE		
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