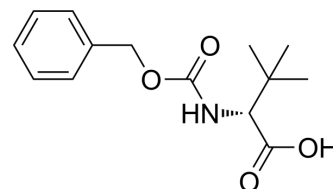


## (R)-2-(((Benzyloxy)carbonyl)amino)-3,3-dimethylbutanoic acid

<b>Cat. No.:</b>	HY-77630		
<b>CAS No.:</b>	70874-05-4		
<b>Molecular Formula:</b>	C <sub>14</sub> H <sub>19</sub> NO <sub>4</sub>		
<b>Molecular Weight:</b>	265.3		
<b>Target:</b>	Amino Acid Derivatives		
<b>Pathway:</b>	Others		
<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>	DMSO : 100 mg/mL (376.93 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	3.7693 mL	18.8466 mL	37.6932 mL
		5 mM	0.7539 mL	3.7693 mL	7.5386 mL
10 mM		0.3769 mL	1.8847 mL	3.7693 mL	
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 2.5 mg/mL (9.42 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (9.42 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 2.5 mg/mL (9.42 mM); Clear solution</li> </ol>				

### BIOLOGICAL ACTIVITY

<b>Description</b>	(R)-2-(((Benzyloxy)carbonyl)amino)-3,3-dimethylbutanoic acid is a leucine derivative <sup>[1]</sup> .
<b>In Vitro</b>	<p>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<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

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## REFERENCES

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[1]. Luckose F, et al. Effects of amino acid derivatives on physical, mental, and physiological activities. Crit Rev Food Sci Nutr. 2015;55(13):1793-1144.

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

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