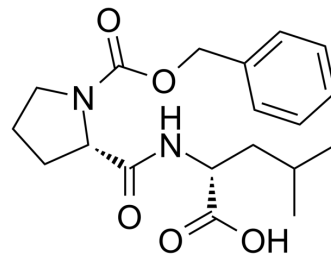


Prolylleucine

Cat. No.:	HY-112173
CAS No.:	61596-47-2
Molecular Formula:	C ₁₉ H ₂₆ N ₂ O ₅
Molecular Weight:	362
Sequence:	Z-Pro-{d-Leu}
Sequence Shortening:	ZP-{d-Leu}
Target:	Others
Pathway:	Others
Storage:	Sealed storage, away from moisture
	Powder -80°C 2 years
	-20°C 1 year



* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (276.24 mM)
 * "≥" means soluble, but saturation unknown.

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.7624 mL	13.8122 mL	27.6243 mL
	5 mM	0.5525 mL	2.7624 mL	5.5249 mL
	10 mM	0.2762 mL	1.3812 mL	2.7624 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 2.5 mg/mL (6.91 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: ≥ 2.5 mg/mL (6.91 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (6.91 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Prolylleucine is a dipeptide containing branched-chain amino acids. Prolylleucine can affect the circadian rhythms and behaviour of animals^{[1][2]}.

In Vitro

The addition of specific dipeptide containing branched-chain amino acids, such as Prolylleucine, to the growth medium

negatively affects cell envelope-associated proteinase (CEP) activity, whereas dipeptides without branched-chain amino acids had no effect on the enzyme's production^[1].

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

CUSTOMER VALIDATION

- Microbiome. 2019 Mar 20;7(1):43.
- Laurea Magistrale in Biomedical Engineering, Politecnico di Milano. 2019 Jun.

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REFERENCES

[1]. Hebert EM, et al. Characterization of the pattern of alphas1- and beta-casein breakdown and release of a bioactive peptide by a cell envelope proteinase from *Lactobacillus delbrueckii* subsp. *lactis* CRL 581. *Appl Environ Microbiol.* 2008 Jun;7

[2]. E V Kravchenko, et al. Influence of changes in the state of brain neurotransmitter and peptidergic systems on circadian rhythms and behavior of rats. *Zh Vyssh Nerv Deiat Im I P Pavlova.* Jul-Aug 2012;62(4):453-64.

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

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