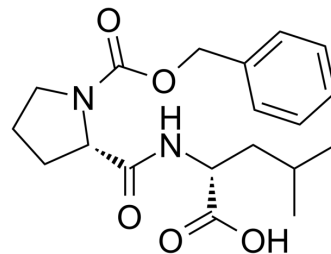


Prolylleucine

Cat. No.:	HY-112173
CAS No.:	61596-47-2
Molecular Formula:	C ₁₉ H ₂₆ N ₂ O ₅
Molecular Weight:	362.42
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 (275.92 mM)

* "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		2.7592 mL	13.7961 mL	27.5923 mL
	5 mM		0.5518 mL	2.7592 mL	5.5185 mL
	10 mM		0.2759 mL	1.3796 mL	2.7592 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 (6.90 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (6.90 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (6.90 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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