Cyclo(L-Phe-L-Pro)

Cat. No.: HY-P1934A

CAS No.: 3705-26-8

Molecular Formula: $C_{14}H_{16}N_2O_2$

Molecular Weight: 244.29

Sequence Shortening: Cyclo(FP)

Target: Fungal; IFNAR; Reactive Oxygen Species

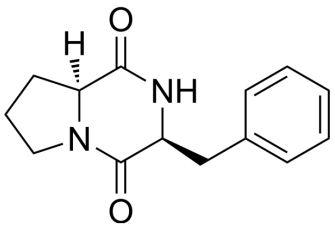
Pathway: Anti-infection; Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB

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 : 250 mg/mL (1023.37 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.0935 mL	20.4675 mL	40.9350 mL
	5 mM	0.8187 mL	4.0935 mL	8.1870 mL
	10 mM	0.4093 mL	2.0467 mL	4.0935 mL

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

BIOLOGICAL ACTIVITY

Description

Cyclo(L-Phe-L-Pro), isolated from Pseudomonas fluorescens and Pseudomonas alcaligenes cell-free culture supernatants is an antifungal cyclic dipeptide[1]. Cyclo(L-Phe-L-Pro) inhibits IFN-β production by interfering with retinoic-acid-inducible gene-I (RIG-I) activation[2]. Cyclo(L-Phe-L-Pro) exhibits free-radical scavenging activity with the IC_{50} of 24 μM in the DPPH assay[3].

REFERENCES

[1]. Katrin Ström, et al. Lactobacillus plantarum MiLAB 393 Produces the Antifungal Cyclic Dipeptides Cyclo(L-Phe-L-Pro) and Cyclo(L-Phe-trans-4-OH-L-Pro) and 3-Phenyllactic Acid. Appl Environ Microbiol. 2002 Sep;68(9):4322-7.

[2]. Wooseong Lee, et al. Vibrio vulnificus quorum-sensing molecule cyclo(Phe-Pro) inhibits RIG-I-mediated antiviral innate immunity. Nat Commun. 2018 Apr 23;9(1):1606.

[3]. Keyong Ho Lee, et al. Radioprotective effect of cyclo(L-phenylalanyl-L-prolyl) on irradiated rat lung. J Microbiol Biotechnol. 2008 Feb;18(2):369-76.

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

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