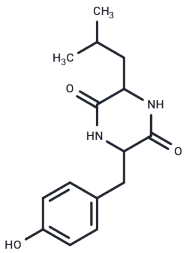
Data Sheet (Cat.No.TN6444)

TargetMol

Cyclo(Tyr-Leu)

Chemical Properties



CAS No. : 82863-65-8

Formula: C15H20N2O3

Molecular Weight: 276.33

Storage: Keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Cyclo(Tyr-Leu) is a cyclic dipeptide derived from Portulaca oleracea Linn, exhibiting cytotoxic, antifungal, and anticoagulant activities.
Targets(IC50)	Antifungal
In vitro	Bacillus associated with an entomopathogenic nematode is shown to produce diketopiperazine (DKP) that showed stronger antifungal activity against Colletotrichum gloeosporioides [minimum inhibitory concentration (MIC): 8 μg mL(- 1)] than commercial fungicide oligochitosan (MIC: 125 μg mL(- 1)). DKP identified as cyclo(D-Tyr-L-Leu) was isolated for the first time from a natural source with a d-tyrosine residue[1].

Solubility Information

Solubility	DMSO: 3.85 mg/mL (13.93 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.6189 mL	18.0943 mL	36.1886 mL
5 mM	0.7238 mL	3.6189 mL	7.2377 mL
10 mM	0.3619 mL	1.8094 mL	3.6189 mL
50 mM	0.0724 mL	0.3619 mL	0.7238 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Kumar N, et al. Isolation and antifungal properties of cyclo(D-Tyr-L-Leu) diketopiperazine isolated from Bacillus sp. associated with rhabditid entomopathogenic nematode. Natural Product Research 2013, 27(23):2168-217
Takashi Mizuma, et al. Uptake of Cyclic Dipeptide by PEPT1 in Caco-2 Cells: Phenolic Hydroxyl Group of Substrate Enhances Affinity for PEPT1. J Pharm Pharmacol. 2002 Sep;54(9):1293-6.

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