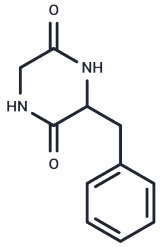
Data Sheet (Cat.No.TN6682)

TargetMol

Cyclo(Phe-Gly)

Chemical Properties



CAS No. : 5037-75-2

Formula: C11H12N2O2

Molecular Weight: 204.23

Storage: 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(Phe-Gly) is a naturally occurring cyclic dipeptide formed by the cyclization of phenylalanine and glycine. Cyclo(Phe-Gly) exhibits antibacterial, anticancer, and anti-inflammatory activities and is widely found in microbial fermentation broths, as well as in plants and animals. Cyclo(Phe-Gly) can be used in research on microorganisms and tumor mechanisms.
Targets(IC50)	Antibacterial
In vitro	To discover antagonists of VEGFR2-CD from the fermentation broth produced by streptomyces strain I06A-02832. METHODS AND RESULTS:Under the guidance of ELISA assay against VEGFR2-CD, Compounds 2832 B and 2832 C were isolated and purified by combination of different column chromatographies and HPLC. The structures of compounds 2832 B and C were identified by combination of analysis of UV, IR, MS and 1D-NMR, 2D-NMR. Compounds 2832 B and 2832 C were purified and structurally identified as cyclic dipeptides, and were the same with cyclo-(Pro-Tyr) and Cyclo(Phe-Gly) respectively. Compounds 2832 B and 2832 C showed weak antagonistic activity against VEGFR2-CD by ELISA assay. CONCLUSIONS: They are firstly reported compounds 2832 B and 2832 C had antagonistic activity against VEGFR2-CD.

Solubility Information

Solubility	DMSO: 4 mg/mL (19.59 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.8964 mL	24.4822 mL	48.9644 mL
5 mM	0.9793 mL	4.8964 mL	9.7929 mL
10 mM	0.4896 mL	2.4482 mL	4.8964 mL
50 mM	0.0979 mL	0.4896 mL	0.9793 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

Xueqiong Yang, et al. A new cyclopeptide from endophytic Streptomyces sp. YIM 64018. Nat Prod Commun. 2013 Dec;8(12):1753-4.

Borthwick AD. 2,5-Diketopiperazines: synthesis, reactions, medicinal chemistry, and bioactive natural products. Chem Rev. 2012;112(7):3641-3716.