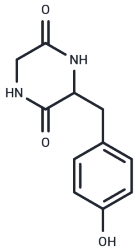
Data Sheet (Cat.No.TN6687)

TargetMol

Cyclo(Tyr-Gly)

Chemical Properties



CAS No. : 5625-49-0

Formula: C11H12N2O3

Molecular Weight: 220.22

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(Tyr-Gly) is a natural product for research related to life sciences. The catalog number is TN6687 and the CAS number is 5625-49-0.
In vitro	METHODS AND RESULTS: Enrichment culture of soil samples with cyclo(Gly-Gly) and cyclo(Gly-l-Tyr) as a carbon and/or a nitrogen source resulted in the isolation of Arthrobacter sp. 1-3-1 and the coryneform rod bacterium, strain T-1-3-Y, as the bacteria which most highly assimilated cyclo(Gly-Gly) and cyclo(Gly-l-Tyr), respectively. Both bacteria had the enzyme activity hydrolyzing DKPs intracellularly in contrast to the extracellular cyclo(Gly-Gly) hydrolase reported previously. The cells of Arthrobacter sp. 1-3-1 degraded all diketopiperazines tested, including cyclo(Gly-Gly), cyclo(Gly-l-Ala), cyclo(Gly-l-Val), cyclo(Gly-l-Leu), cyclo(Gly-l-Ile), cyclo(Gly-l-Met), cyclo(Gly-l-Phe), cyclo(Gly-l-Tyr)(Cyclo(Tyr-Gly)), cyclo(l-Ala-l-Tyr), cyclo(l-Val-l-Tyr), cyclo(l-Leu-l-Tyr), cyclo(l-Tyr-l-Tyr), cyclo(l-Phe-l-Leu), cyclo(Gly-d-Ala), and cyclo(Gly-d-Leu). On the other hand, the degradation of d-amino acid-containing DKPs or cyclo(Gly-Gly) by the cells of the strain T-1-3-Y were detected hardly or not at all, respectively. CONCLUSIONS: From the result that DKP hydrolase in the strain T-1-3-Y had a higher stereospecificity than that in Arthrobacter sp. 1-3-1, the diversity of DKP hydrolases were found to be in nature.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.5409 mL	22.7046 mL	45.4091 mL
5 mM	0.9082 mL	4.5409 mL	9.0818 mL
10 mM	0.4541 mL	2.2705 mL	4.5409 mL
50 mM	0.0908 mL	0.4541 mL	0.9082 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

Microbial degradation of 2,5-diketopiperazines. Studies in Organic Chemistry, 1998, 53(98):167-171.

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