Data Sheet (Cat.No.TN6674)

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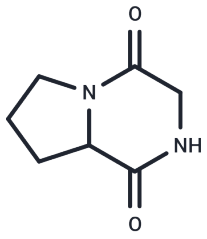
Cyclo-(Pro-Gly)

Chemical Properties



CAS No. : 19179-12-5

Formula: C7H10N2O2

Molecular Weight: 154.1665

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Cyclo(Pro-Gly) is an active metabolite of piracetam-N-phenylacetyl-L-prolylglycine (GWS-111), it shows a greater resistance to an enzymatic effect than natural neuropeptides. Cyclo-(Gly-Pro) shows cytotoxicity at the concentration of 10 umol/L, it inhibits the growth of Bacillus subtilis with the minimal inhibitory concentration (MIC) value of 0.8, 0.8 g/L.
In vitro	METHODS AND RESULTS:In the present study, an endophytic fungus isolate FTJZZJ09, which isolated from the fresh bulbs of Fritillaria thunbergii Miq., was identified as Penicillium chrysogenum based on its morphological characters and internal transcribed spacer (ITS) sequence. After being cultured in the modified CzapeK-DoX medium (3 g/L maltose, 3 g/L peptone A, 0.1 g/L K2HPO4, 0.05 g/L KCl, 0.3 g/L NaNO3, 0.05 g/L MgSO4·7H2O, 0.001 g/L FeSO4·7H2O, pH 6.5), it can secrete antibacterial metabolites under the condition of 28 °C in a rotary shaker at 160 r/min for 7 days. Three antibacterial compounds were isolated from the ethyl acetate extract of the fermentation broth by silica gel, they were elucidated as Cyclo(Pro-Gly) , cyclo (Pro-Val) and 2-acetyl-4 (3H) quinazolinone. CONCLUSIONS: All the three compounds could inhibit the growth of Bacillus subtilis with the minimal inhibitory concentration (MIC) value of 0.8, 0.8, and 0.4 g/L respectively, while they showed no apparent effects against the growth of Gram-negative bacteria.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	6.4863 mL	32.4317 mL	64.8635 mL
5 mM	1.2973 mL	6.4863 mL	12.9727 mL
10 mM	0.6486 mL	3.2432 mL	6.4863 mL
50 mM	0.1297 mL	0.6486 mL	1.2973 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.

Reference

The Endophytic Fungus Strain FTJZZJ09 Isolated from the Bulbs of Fritillaria thunbergii and Its Antibacterial Metabolites Microbiology China,2010, 37(10):1475-80.

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