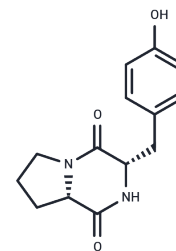


cyclo(L-Pro-L-Tyr)

Chemical Properties

CAS No. :	4549-02-4
Formula:	C ₁₄ H ₁₆ N ₂ O ₃
Molecular Weight:	260.29
Storage:	Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Maculosin is a secondary metabolite of fungi and bacteria.
Targets(IC50)	Others,Endogenous Metabolite,Antibacterial,Antifungal
In vitro	Maculosin acts as a host-specific phytotoxin, inducing formation of weeping necrotic lesions in leaves of spotted knapweed (<i>C. maculosa</i>) when used at a concentration of 10 μ M. Maculosin reduces the growth of the plant pathogenic bacteria <i>X. axonopodis</i> and <i>R. solanacearum</i> (MICs = 31.25 μ g/ml) as well as the pathogenic oomycetes <i>P. cactorum</i> , <i>P. capsici</i> , <i>P. cinnamomi</i> , <i>P. infestans</i> , and <i>P. ultimum</i> when used at concentrations ranging from 10 to 100 mg/ml. Maculosin also inhibits the growth of <i>M. luteus</i> , <i>M. smegmatis</i> , <i>S. cerevisiae</i> , <i>C. albicans</i> , <i>C. neoformans</i> , and <i>A. niger</i> when used in combination with pyrrolnitrin or banegasin.

Solubility Information

Solubility	DMSO: 125 mg/mL (480.23 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 3.3 mg/mL (12.68 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.8419 mL	19.2093 mL	38.4187 mL
5 mM	0.7684 mL	3.8419 mL	7.6837 mL
10 mM	0.3842 mL	1.9209 mL	3.8419 mL
50 mM	0.0768 mL	0.3842 mL	0.7684 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

Stierle A C , Cardellina J H , Strobel G A . Maculosin, a host-specific phytotoxin for spotted knapweed from *Alternaria alternata*]. Proceedings of the National Academy of Sciences, 1988, 85(21):8008-8011.
Puopolo G , Cimmino A , Palmieri M C , et al. *Lysobacter capsici* AZ78 produces cyclo(L-Pro- L-Tyr), a 2,5-diketopiperazine with toxic activity against sporangia of *Phytophthora infestans* and *Plasmopara viticola*]. Journal of Applied Microbiology, 2014, 117(4).

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