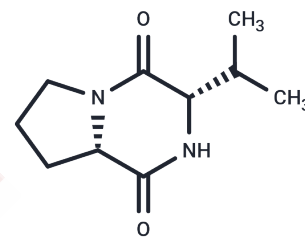


Cyclo(L-Pro-L-Val)

Chemical Properties

CAS No. :	2854-40-2
Formula:	C10H16N2O2
Molecular Weight:	196.25
Storage:	Store at low temperature, 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	Cyclo(L-Pro-L-Val), a 2,5-diketopiperazine extracted from the fruits of <i>Mycobacterium chiloilyticum</i> AZ2 and <i>Mycobacterium leprae</i> , possesses anti-inflammatory activity and virulence activity against phytopathogenic microorganisms (e.g., <i>R. fascians</i> LMG 3605) and inhibits Gram-positive plant pathogens. Cyclo(L-Pro-L-Val) significantly inhibited IKK α phosphorylation and I κ B α and NF- κ B activation as well as iNOS and COX-2 activation in a concentration Cyclo(L-Pro-L-Val) significantly inhibited the phosphorylation of IKK α , IKK β , I κ B α , and NF- κ B, as well as the activation of iNOS and COX-2 in a concentration-dependent manner, and is a potential therapeutic agent for the treatment of inflammation-related diseases.
Targets(IC50)	NOS, NF- κ B, Antibacterial, COX, I κ B/IKK

Solubility Information

Solubility	DMSO: 127.5 mg/mL (649.68 mM), Sonication is recommended. CDCl ₃ : 112.5 mg/mL (573.25 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 10 mg/mL (50.96 mM), Solution. <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	5.0955 mL	25.4777 mL	50.9554 mL
5 mM	1.0191 mL	5.0955 mL	10.1911 mL
10 mM	0.5096 mL	2.5478 mL	5.0955 mL
50 mM	0.1019 mL	0.5096 mL	1.0191 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

Cimmino A, et al. Isolation of 2,5-diketopiperazines from *Lysobacter capsici* AZ78 with activity against *Rhodococcus fascians*. *Nat Prod Res.* 2021;35(23):4969-4977.

Cimmino A, et al. Isolation of 2,5-diketopiperazines from *Lysobacter capsici* AZ78 with activity against *Rhodococcus fascians*. *Nat Prod Res.* 2021;35(23):4969-4977.

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