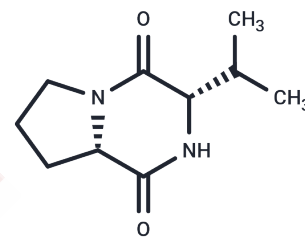


## Cyclo(L-Pro-L-Val)

## Chemical Properties

CAS No. :	2854-40-2
Formula:	C <sub>10</sub> H <sub>16</sub> N <sub>2</sub> O <sub>2</sub>
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 $\alpha$ phosphorylation and I $\kappa$ B $\alpha$ and NF- $\kappa$ B activation as well as iNOS and COX-2 activation in a concentration Cyclo(L-Pro-L-Val) significantly inhibited the phosphorylation of IKK $\alpha$ , IKK $\beta$ , I $\kappa$ B $\alpha$ , and NF- $\kappa$ 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(IC <sub>50</sub> )	NOS, NF- $\kappa$ B, Antibacterial, COX, I $\kappa$ B/IKK

## Solubility Information

Solubility	DMSO: 90 mg/mL (458.6 mM), Sonication is recommended. CDCl <sub>3</sub> : 112.5 mg/mL (573.25 mM), Sonication is recommended. ( $< 1$ mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	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

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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.

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