Natural Products



Cyclo(Pro-Val) Datasheet

5th Edition (Revised in January, 2017)

[Product Information]

Name: Cyclo(Pro-Val)

Catalog No.: CFN90275

Cas No.: 5654-87-5

Purity: >=98%

 $M.F: C_{10}H_{16}N_2O_2$

M.W: 196.25

Physical Description: Powder

Synonyms:3-Propan-2-yl-2,3,6,7,8,8a-hexahydropyrrolo[1,2-a]pyrazine-1,4-dione;Diketo piperazin-Pro-Val.

[Intended Use]

- 1. Reference standards;
- 2. Pharmacological research;
- 3. Agricultural research;
- 4. Synthetic precursor compounds;
- 5. Intermediates & Fine Chemicals;
- 6. Others.

[Source]

From Penicillium oxalicum.

[Biological Activity or Inhibitors]

Cyclo(Pro-Val) shows cyctoxic activity in vitro.^[1]

Cyclo(Pro-Val) shows moderate antifungal and weak antitumor activities in vitro.^[2] Cyclo(Pro-Val) and cyclo(Pro-Tyr) are toxic to both suspension cells and seedlings of Pinus thunbergii, which may offer some clues to research the mechanism of pine wilt disease caused by pine wood nematode.^[3]

Cyclo (Pro-Val) and cyclo (Pro-Gly) can inhibit the growth of Bacillus subtilis with the minimal inhibitory concentration (MIC) value of 0.8, 0.8 g/L respectively, while they show no apparent effects against the growth of Gram-negative bacteria.^[4]

[Solvent]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

[HPLC Method]^[5]

Mobile phase: Methanol -H2O,gradient elution; Flow rate:3.0 ml/min; Column temperature: Room Temperature; The wave length of determination:203 nm.

[Storage]

 $2\text{-}8^\circ\!\mathbb{C}$, Protected from air and light, refrigerate or freeze.

[<u>References</u>]

[1] Liu H B,Gao H, Wang N L, et al. Journal of Shenyang Pharmaceutical University, 2007, 24(8) :474-8.
[2] Yang L, Tan R X, Wang Q, et al. Tetrahedron Lett., 2002, 33(51):6545-8.
[3] Guo Q, Guo D, Zhao B, et al. J. Nematol., 2007 Sep; 39(3):243-7.
[4] Tian F, He R F, Li M Y, et al. Microbiology China, 2010, 37(10):1475-80.

[5] Wang L, Hu S Z, Liu C X, et al. Chemical Research and Application, 2014(9):1478-82.

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