

PRODUCT DATA SHEET

cyclo(L-Phe-L-Pro)

Code: **BIA-C1358**

Pack sizes: 5 mg, 25 mg

Synonyms : -

Specifications

CAS # : 3705-26-8 Molecular Formula : $C14H_{16}N_2O_2$

Molecular Weight : 244.3

Source : **Synthetic**Appearance : **White solid**

Purity : **>98%** Storage : **-20°C**

Solubility : Soluble in ethanol, methanol, DMF or DMSO. Limited water solubility.

Application Notes

Cyclo(L-Phe-L-Pro) is a diketopiperazine formed by the fusion of phenylalanine and proline and has been reported as a secondary metabolite of fungi and bacteria. In *Pseudomonas aeruginosa*, cyclo(L-Phe-L-Pro) is capable of activating N-acylhomoserine lactones (AHLs). Cyclo(L-Phe-L-Pro) is also capable of activating or antagonizing other LuxR-based quorum-sensing systems. While the mode of action of cyclo(L-Phe-L-Pro) is not known, its activity suggests the existence of cross talk among bacterial signalling systems.

References

- 1. Citromycetins and bilains A-C: new aromatic polyketides and diketopiperazines from Australian marine-derived and terrestrial *Penicillium* spp. Capon R.J. et al. J. Nat. Prod. **2007**, 70, 1746.
- 2. Quorum-sensing cross talk: isolation and chemical characterization of cyclic dipeptides from *Pseudomonas aeruginosa* and other Gram-negative bacteria. Holden M.T.G. *et al.* Mol. Microbiol. **1999**, 33, 1254.

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