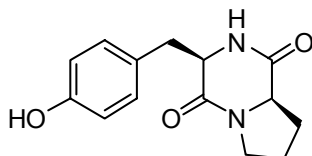


## cyclo(L-Pro-L-Tyr)

Code: **BIA-C1359**

Pack sizes: **5 mg, 25 mg**



Synonyms : **Maculosin**

## Specifications

CAS # : **4549-02-4**  
Molecular Formula : **C<sub>14</sub>H<sub>16</sub>N<sub>2</sub>O<sub>3</sub>**  
Molecular Weight : **260.3**  
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-Pro-L-Tyr) is a diketopiperazine formed by the fusion of tyrosine and proline which has been reported as a secondary metabolite of fungi and bacteria. In *Pseudomonas aeruginosa*, cyclo(L-Pro-L-Tyr) is capable of activating N-acylhomoserine lactones (AHLs). Cyclo(L-Pro-L-Tyr) is also capable of activating or antagonizing other LuxR-based quorum-sensing systems. While the mode of action of cyclo(L-Pro-L-Tyr) is not known, its activity suggests the existence of cross talk among bacterial signalling systems. Cyclo(L-Pro-L-Tyr), generically named maculosin, was identified as a host-specific toxin produced by *Alternaria alternata* on spotted knapweed.

## 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.
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3. Maculosin, a host-specific phytotoxin for spotted knapweed from *Alternaria alternata*. Stierle A.C. Proc. Natl. Acad. Sci. USA **1988**, 85, 8008.