cyclo(L-Pro-L-Tyr)

Synonyms : Maculosin

Specifications
CAS # : 4549-02-4
Molecular Formula : C_{14}H_{16}N_{2}O_{3}
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