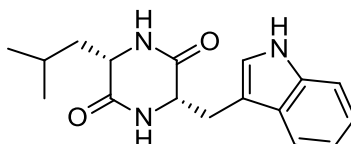


Cyclo(L-Leu-L-Trp)

Code No.: **BIA-C1711**

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



Synonyms : (3S,6S)-3-(1H-Indol-3-ylmethyl)-6-(2-methylpropyl)-2,5-piperazinedione; Cyclo(L-leucyl-L-tryptophyl) (8CI); BP II; Cyclo(Trp-Leu);

Specifications

CAS #	: 15136-34-2
Molecular Formula	: C ₁₇ H ₂₁ N ₃ O ₂
Molecular Weight	: 299.4
Source	: <i>Penicillium</i> sp.
Appearance	: White solid
Purity	: >95% by HPLC
Long Term Storage	: -20°C
Solubility	: Soluble in ethanol, methanol, DMF or DMSO.

Application Notes

Cyclo(L-Leu-L-Trp) is a diketopiperazine metabolite first isolated from *Penicillium aurantiovirens* in 1989. Since then, cyclo(L-Leu-L-Trp) has been reported from other fungi and bacteria and is likely to be broadly distributed across microbes and plants. Cyclo(L-Leu-L-Trp) has a bitter taste and is used as a standard in flavor and taste research. Like other diketopiperazines, cyclo(L-Leu-L-Trp) appears in several recent patents covering a diverse range of diketopiperazines with broad therapeutic claims.

References

1. Biosynthesis of leucyl-tryptophanyl-diketopiperazine by a culture of *Penicillium aurantiovirens* and the characteristics of its production. Solov'eva T.F. et al., *Mikrobiologiya* 1989, 58, 393.
2. Rapid entry of bitter and sweet tastants into liposomes and taste cells: implications for signal transduction. Peri I. et al., *Am. J. Physiol.* 2000, 278, C17.
3. Brevicompanine C, cyclo-(D-Ile-L-Trp), and cyclo-(D-Leu-L-Trp), plant growth regulators from *Penicillium brevicompactum*. Kimura Y. et al., *J. Nat.Prod.* 2005, 68, 237.
4. Purification, structural elucidation and bioactivity of tryptophan containing diketopiperazines, from *Comamonas testosteroni* associated with a rhabditid entomopathogenic nematode against major human pathogenic bacteria. Nishanth K. et al., in *Peptides* (New York, NY, United States) 2014, 53, 48.