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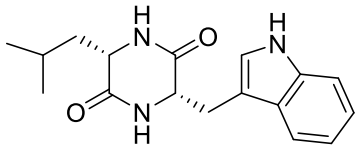
PRODUCT DATA SHEET

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	:	**$C_{17}H_{21}N_3O_2$**
Molecular Weight	:	**299.4**
Source	:	***Penicillium* sp.**
Appearance	:	**White solid**
Purity	:	**>95% by HPLC**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in methanol, 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 brevi-compactum. 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.

For in vitro laboratory use only. Not for human or animal use.

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