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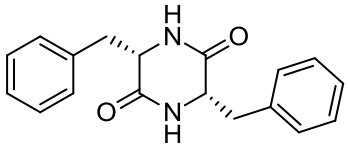
PRODUCT DATA SHEET

Cyclo(L-Phe-L-Phe)

Code No.: **BIA-C1716**

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



Synonyms : (3S,6S)-3,6-Dibenzylpiperazine-2,5-dione; Cyclo(phenylalanylphenylalanine); Cyclo-L-phenylalanyl-L-phenylalanine; Phenylalanylphenylalanyldiketopiperazine, cis-L-3,6-dibenzyl-2,5-dioxopiperazine; Phenylalanine anhydride; 3,6-Dibenzyl-2,5-dioxopiperazine

Specifications

CAS #	:	**2862-51-3**
Molecular Formula	:	**$C_{18}H_{18}N_2O_2$**
Molecular Weight	:	**294.4**
Source	:	***Penicillium* 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-Phe-L-Phe) is a diketopiperazine metabolite first reported by Birkinshaw and Mohammed in 1962 as a metabolite of Penicillium nigricans. Cyclo(L-Phe-L-Phe) was subsequently reported as a metabolite in other fungi and actinomycetes and is a useful standard for chemical and bioassay dereplication. Like other diketopiperazines cyclo(L-Phe-L-Phe) appears in several recent patents covering a diverse range of diketopiperazines with broad therapeutic claims.

References

1. Biochemistry of microorganisms. CXI. The production of L-phenylalanine anhydride (cis-L-3,6-dibenzyl-2,5-dioxopiperazine) by Penicillium nigricans. Birkinshaw J.H. and Mohammed Y.S., Biochem. J. 1962, 85, 523.
2. The production of 3-benzylidene-6-isobutylidene-2,5-dioxopiperazine, 3,6-dibenzylidene-2,5-dioxopiperazine, 3-benzyl-6-benzylidene-2,5-dioxopiperazine, and 3,6-dibenzyl-2,5-dioxopiperazine by a variant of Streptomyces noursei. Brown R. et al., J. Org. Chem. 1965, 30, 277.

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