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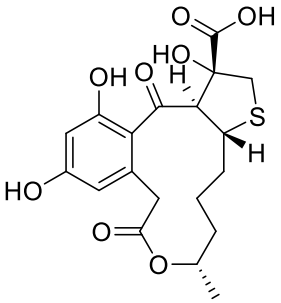
PRODUCT DATA SHEET

Cyclothiocurvularin A

Code No.: **BIA-C1971**

Pack sizes: **0.5 mg, 2.5 mg**



Synonyms :

Specifications

CAS #	:	**NA**
Molecular Formula	:	**$C_{19}H_{22}O_8S$**
Molecular Weight	:	**410.44**
Source	:	***Curvularia* sp.**
Appearance	:	**Off-white solid**
Purity	:	**>95% by HPLC**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in methanol or DMSO**

Application Notes

Cyclothiocurvularin is a 12-membered macrocyclic lactone isolated from Penicillium and Curvularia sp. incorporating a β-hydroxy sulfide moiety. Biosynthetically, cyclothiocurvularin is formed by spontaneous reaction between 10,11-dehydrocurvularin and mercaptopyruvate obtained by transamination of cysteine. There is little data on the biolocal activity of cyclothiocurvularin, however its analogues curvularin and dehydrocurvularin inhibit cell division by disrupting mitotic spindle formation. Its precursor, dehydrocurvularin, acts as a developmental regulator by inhibiting self-sporulation in Alternaria alternata and has antimalarial activity.

References

1. Condensation of macrocyclic polyketides produced by Penicillium sp. DRF2 with mercaptopyruvate represents a new fungal detoxification pathway. Castro M.V. et al. J Nat Prod. 2016, 79, 1668.
2. Sporogen, S14-95 and S-curvularin, three inhibitors of human inducible nitric-oxide synthase expression isolated from fungi. Yao Y. et al., Mol. Pharmacol. 2003, 63, 383.
3. Isolation of alpha, beta-dehydrocurvularin and, beta-hydroxycurvularin from Alternaria tomato as sporulation suppressing factors. Hyeon S-B. et al. Agri. Biol. Chem. 1976, 44, 1663.
4. Betagamma-dehydrocurvularin and related compounds as nematocides of Pratylenchus penetrans from the fungus Aspergillus sp. Kusano M. et al. Biosci. Biotechnol. Biochem. 2003, 67, 1413.

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Building C, 28-54 Percival Road, Smithfield, NSW 2164, AUSTRALIA

Tel: 61 2 9757 4515 Fax: 61 2 9757 2586 Web: www.bioaustralis.com Email: info@bioaustralis.com