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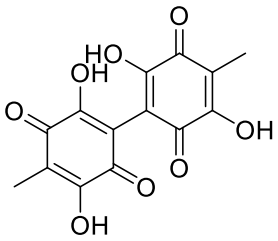
PRODUCT DATA SHEET

Oosporein

Code No.: **BIA-O2303**

Pack sizes: **0.1 mg, 0.5 mg**



Synonyms : NSC 88466

Specifications

CAS #	:	**475-54-7**
Molecular Formula	:	**$C_{14}H_{10}O_8$**
Molecular Weight	:	**306.2**
Source	:	***Beauveria bassiana***
Appearance	:	**Red solid**
Purity	:	**>95% by HPLC**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in methanol or DMSO.**

Application Notes

Oosporein is a purple-red pigment published as a metabolite of Acremonium sp. in 1959. Oosporein has antibacterial, antiviral and antifungal activity. Oosporein is produced by the entomopathogenic fungus Beauveria bassiana after host death, acting to limit microbial competition on B. bassiana-killed hosts and allowing the fungus to maximally use host nutrients to grow and sporulate on infected insect cadavers. Oosporein production is regulated by a cascade of transcription factors, with BbSmr1 acting as an upstream negative regulator, targeting the expression of OpS3, which in turn acts as a positive regulator of the oosporein biosynthetic gene cluster.

References

1. Oosporein from an Acremonium sp. Divekar P.V. et al. Can J Chem. 1959, 37, 2097.
2. Antifungal activity of oosporein from an antagonistic fungus against Phytophthora infestans. Nagaoka T. et al. Zeitschrift fur Naturforschung. C, J Biosci. 2004, 59, 302.
3. Inhibition of herpes simplex virus type 1 DNA polymerase by the natural product oosporein. Terry B.J. et al. J Antibiot. 1992, 45, 286.
4. Regulatory cascade and biological activity of Beauveria bassiana oosporein that limits bacterial growth after host death. Fan Y. et al. Proc Nat Acad Sci. 2017, 114, E1578.

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