

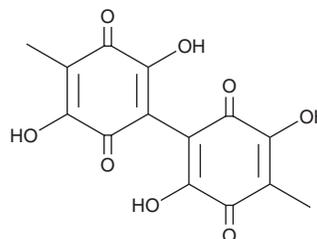
PRODUCT INFORMATION



Oosporein

Item No. 29173

CAS Registry No.: 475-54-7
Formal Name: 2,2',5,5'-tetrahydroxy-4,4'-dimethyl-[bi-1,4-cyclohexadien-1-yl]-3,3',6,6'-tetrone
Synonym: NSC 88466
MF: C₁₄H₁₀O₈
FW: 306.2
Purity: ≥70%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Oosporein is supplied as a solid. A stock solution may be made by dissolving the oosporein in the solvent of choice, which should be purged with an inert gas. Oosporein is soluble in organic solvents such as ethanol, methanol, DMSO, and dichloromethane.

Description

Oosporein is a mycotoxin that has been found in *Beauveria* and has diverse biological activities.^{1,2} It is cytotoxic to Sf9 and Sf21 insect cells with 50% cytotoxic concentration (CC₅₀) values of 4.23 and 10.43 μM, respectively.³ Oosporein induces lethality in day-old cockerels (LD₅₀ = 6.12 mg/kg).⁴ It inhibits Na⁺/K⁺-, Ca²⁺-, and Mg²⁺-ATPase activities by 27, 52, and 100%, respectively, in equine erythrocyte ghosts when used at a concentration of 200 μg/ml.² Oosporein inhibits herpes simplex 1 (HSV-1), but not HeLa cell or *E. coli*, DNA polymerase (IC₅₀s = 75, 610, and >700 μM, respectively).⁵ It is active against the bacterium *S. pneumoniae* (MIC = 32 μg/ml) and the plant pathogenic fungus *P. infestans* (MIC = 16 μM).^{1,6}

References

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2. Jeffs, L.B. and Khachatourians, G.G. Toxic properties of *Beauveria* pigments on erythrocyte membranes. *Toxicon.* **35(8)**, 1351-1356 (1997).
3. Arboleda Valencia, J.W., Gaitán Bustamante, A.L., Jiménez, A.V., et al. Cytotoxic activity of fungal metabolites from the pathogenic fungus *Beauveria bassiana*: An intraspecific evaluation of beauvericin production. *Curr. Microbiol.* **63(3)**, 306-312 (2011).
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5. Terry, B.J., Liu, W.C., Cianci, C.W., et al. Inhibition of herpes simplex virus type 1 DNA polymerase by the natural product oosporein. *J. Antibiot. (Tokyo)* **45(2)**, 286-288 (1992).
6. Nagaoka, T., Nakata, K., Kouno, K., et al. Antifungal activity of oosporein from an antagonistic fungus against *Phytophthora infestans*. *Z. Naturforsch. C. J. Biosci.* **59(3-4)**, 302-304 (2004).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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