

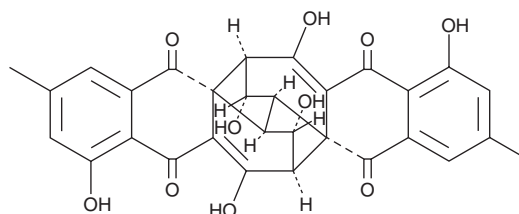
PRODUCT INFORMATION



(+)-Rugulosin

Item No. 23558

CAS Registry No.: 23537-16-8
Formal Name: (5aS,6R,13aS,14R,17S,18R,19R,20S)-1,7,9,15,17,20-hexahydroxy-3,11-dimethyl-5H,6H-6,13a,5a,14-[1,2,3,4]butanetetraylcycloocta[1,2-b:5,6-b']dinaphthalene-5,8,13,16(14H)-tetrone
Synonyms: NSC 160880, NSC 249990, Rugulosin A
MF: C₃₀H₂₂O₁₀
FW: 542.5
Purity: ≥98%
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

(+)-Rugulosin is supplied as a solid. A stock solution may be made by dissolving the (+)-rugulosin in the solvent of choice, which should be purged with an inert gas.. (+)-Rugulosin is soluble in organic solvents such as ethanol, methanol, and DMSO

Description

(+)-Rugulosin is a pigment and mycotoxin produced by certain fungi.¹ It inhibits HIV-1 integrase activity with IC₅₀ values of 19 and 25 μM in coupled and strand transfer assays, respectively.² It also inhibits ribonuclease H in rat liver by 83% at a concentration of 157 μM and ribonucleases H1, H2, and H3 in *T. pyriformis* by 100, 99, and 100%, respectively, at a concentration of 313 μM.³ (+)-Rugulosin leads to hepatic injury and liver cell hyperplasia in mice when administered in the diet.¹ It is cytotoxic to insect cells but not mammalian C6/36, L929, and HepG2 cells (ID₅₀s = 1.2, >200, 23.7, and >200 μg/ml, respectively).⁴

References

1. Uneo, Y., Sato, N., Ito, T., *et al.* Chronic toxicity and hepatocarcinogenicity of (+) rugulosin, an anthraquinoid mycotoxin from penicillium species: Preliminary surveys in mice. *J. Toxicol. Sci.* **5(4)**, 295-302 (1980).
2. Singh, S.B., Jayasuriya, H., Dewey, R., *et al.* Isolation, structure, and HIV-1-integrase inhibitory activity of structurally diverse fungal metabolites. *J. Ind. Microbiol. Biotechnol.* **30(12)**, 721-731 (2003).
3. Tashiro, F., Hiral, K., and Ueno, Y. Inhibitory effects of carcinogenic mycotoxins on deoxyribonucleic acid-dependent ribonucleic acid polymerase and ribonuclease H. *Appl. Environ. Microbiol.* **38(2)**, 191-196 (1979).
4. Watts, P., Kittakoop, P., Veeranondha, S., *et al.* Cytotoxicity against insect cells of entomopathogenic fungi of the genera *Hypocrella* (anamorph *Aschersonia*): Possible agents for biological control. *Mycol. Res.* **107(Pt 5)**, 581-586 (2003).

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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