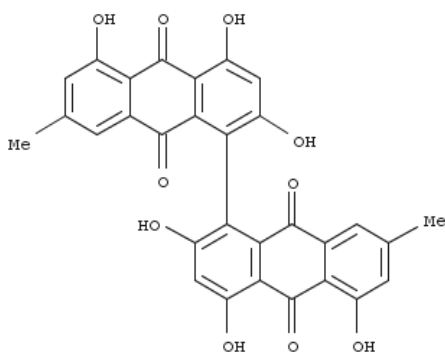


Product Information

Skyrin from *Penicillium islandicum*

Catalog Number **SML0459**
Storage Temperature -20 °C

CAS RN 602-06-2
Synonyms: Endothianin; Rhodophyscin; Skirin



Product Description

Molecular formula: C₃₀ H₁₈ O₁₀
Molecular weight: 538.46

Skyrin is a non-peptidic anthraquinone mycotoxin with *in vitro* cytotoxic activity.¹ It suppresses the growth of HeLa, Vero, K562, Raji, Wish and Calu-1 cell lines.² Skyrin treatment induces DNA fragmentation and other morphological changes leading to apoptosis in human HL-60 promyelotic leukemia cells.^{2,3} Skyrin was found to serve as an anti-diabetic agent by selectively binding to the glucagon receptor acting as its antagonist.⁴ Binding of glucagon to its receptor on hepatocyte plasma membrane activates adenylate cyclase indirectly. As a result, the cAMP produced activates protein kinase A with a consequent increase in both glycogen breakdown and gluconeogenesis leading to glucose output. Skyrin was shown to block this signal transduction sequence, such that the interaction of glucagons with its receptor does not result in an increase in cAMP production.⁴ Skyrin was also found to efficiently scavenge free radical species as ·OH, ·R and of singlet oxygen (¹O₂).⁵ Based on skyrin's selective

toxicity towards insect cell line Sf9, it may be useful as an agent for pest control.⁶

Purity: ≥98% by HPLC

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store the product sealed at -20 °C. Under these conditions the product is stable for at least 4 years. Solution of product (1 mg/mL in DMSO) is stable for at least three months. Soluble in DMSO, acetone, and ethyl acetate.

References

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3. Ueno, Y., Induction of apoptosis by T-2 toxin and other natural toxins in HL-60 human promyelotic leukemia cells. *Nat. Toxins*, **3**, 129-137 (1995).
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DWF,KAA,PHC 09/12-1