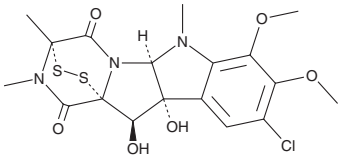
PRODUCT INFORMATION

Sporidesmin A

Item No. 46282

CAS Registry No.: 1456-55-9
Formal Name: (3R,5aR,10bS,11R,11aR)-9-chloro-2,3,5a,6,10b,11-hexahydro-10b,11-dihydroxy-7,8-dimethoxy-2,3,6-trimethyl-3,11a-epidithio-11aH-pyrazino[1′,2′:1,5]pyrrolo[2,3-b]indole-1,4-dione
Synonyms: Hydroxysporidesmin B, Sporidesmin A, NSC 246152
MF: $C_{18}H_{20}ClN_3O_6S_2$
FW: 473.9
Purity: ≥95%
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

Sporidesmin A is supplied as a solid. A stock solution may be made by dissolving the sporidesmin A in the solvent of choice, which should be purged with an inert gas. Sporidesmin A is slightly soluble (0.1-1 mg/ml) in methanol.

Description

Sporidesmin A is an epidithiodioxopiperazine (ETP) mycotoxin that has been found in *P. chartarum*.[1,2] It is the active toxin responsible for facial eczema in livestock, a syndrome characterized by photosensitization, cholestasis, phylloerythrin accumulation in the circulation and tissues, and bile duct stenosis.[1,3,4] Sporidesmin A is a substrate for human glutaredoxin 1 (Grx1) in the presence of glutathione (GSH).[2] It selectively inactivates human Grx1 over yeast glutathione disulfide (GSSG) reductase, *E. coli* thioredoxin (Trx), and mammalian thioredoxin reductase (TrxR) at 1 mM.

References

1. Jordan, T.W. The cellular and molecular toxicity of sporidesmin. *N. Z. Vet. J.* **68(4)**, 203-213 (2020).
2. Srinivasan, U., Bala, A., Jao, S.C., *et al*. Selective inactivation of glutaredoxin by sporidesmin and other epidithiopiperazinediones. *Biochemistry* **45(29)**, 8978-8987 (2006).
3. Percival, J.C. and Thornton, R.H. *Sporidesmium Bakeri* recorded from Victoria, Australia. *Nature* **182**, 1095 (1958).
4. Leaver, D.D. Sporidesmin poisoning in the sheep. *Res. Vet. Sci.* **9(3)**, 255-264 (1968).

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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