PRODUCT INFORMATION



diacetoxy Scirpenol

Item No. 11427

CAS Registry No.:	2270-40-8	
Formal Name:	(3α,4β)-12,13-epoxy-trichothec-9-ene-	
Synonyms:	3,4,15-triol, 4,15-diacetate Anguidin, DAS, NSC 141537, NSC 177378, Scirpenetriol 4,15-diacetate	OH OH
MF:	C ₁₉ H ₂₆ O ₇	
FW:	366.4	U I
Purity:	≥98%	
Supplied as:	A crystalline solid	0- > >0-
Storage:	-20°C	
Stability:	≥4 years	
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.		

Laboratory Procedures

diacetoxy Scirpenol is supplied as a crystalline solid. A stock solution may be made by dissolving the diacetoxy scirpenol in the solvent of choice, which should be purged with an inert gas, diacetoxy Scirpenol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of diacetoxy scirpenol in ethanol is approximately 20 mg/ml and approximately 30 mg/ml in DMSO and DMF.

diacetoxy Scirpenol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, diacetoxy scirpenol should first be dissolved in DMF and then diluted with the aqueous buffer of choice. diacetoxy Scirpenol has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

diacetoxy Scirpenol is a trichothecene mycotoxin originally isolated from F. equiseti.¹ It is toxic to pigs $(LD_{50} = 0.38 \text{ mg/kg}, \text{ i.v.})$ and lethal to brine shrimp $(LC_{50} = 0.39 \text{ µg/ml})$.^{2,3} diacetoxy Scirpenol (1 µg/ml) suppresses phagocytosis by, and superoxide production in, isolated mouse macrophages in an S. cerevisiae model of phagocytosis.⁴ It is toxic to barley, wheat, and sorghum seedlings ($LD_{50}s = 1.26, 3.98$, and 10 mg/L, respectively).⁵ It has been found as a contaminant in grasses intended to be used as animal feed.⁶

References

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- Weaver, G.A., Kurtz, H.J., Mirocha, C.J., et al. Acute toxicity of the mycotoxin diacetoxyscirpenol in swine. 2. Can. Vet. J. 19(10), 267-271 (1978).
- Perkowski, J., Foremska, E., and Latus-Zietkiewicz, D. The yields of diacetoxyscirpenol produced by 3. Fusarium sambucinum cultures isolated from potato tubers and their toxicity to brine shrimps (Artemia salina) Mycotoxin Res. 5(2), 61-67 (1989).
- 4. Ayral, A.M., Dubech, N., Le Bars, J., et al. In vitro effect of diacetoxyscirpenol and deoxynivalenol on microbicidal activity of murine peritoneal macrophages. Mycopathologia 120(2), 121-127 (1992).
- 5. Hasan, H.A. Phytotoxicity of pathogenic fungi and their mycotoxins to cereal seedling viability. Mycopathologia 148(3), 149-155 (1999).
- 6. Kononenko, G.P., Burkin, A.A., Gavrilova, O.P., et al. Fungal species and multiple mycotoxin contamination of cultivated forage crops. Agric. Food Sci. 24(4), 323-330 (2015).

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

SAFFTY 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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