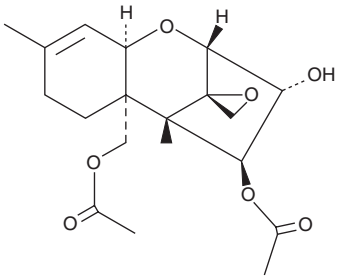
# PRODUCT INFORMATION

## diacetoxy Scirpenol

*Item No. 11427*

**CAS Registry No.:** 2270-40-8
**Formal Name:** (3α,4β)-12,13-epoxy-4,15-diacetate-trichothec-9-ene-3,4,15-triol
**Synonyms:** Anguidin, DAS, NSC 141537,NSC 177378, Scirpenetriol 4,15-diacetate
**MF:** $C_{19}H_{26}O_7$
**FW:** 366.4
**Purity:** ≥98%
**Supplied as:** A crystalline solid
**Storage:** -20°C
**Stability:** ≥2 years




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

### Laboratory Procedures

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

DAS is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, DAS should first be dissolved in DMF and then diluted with the aqueous buffer of choice. DAS has a solubility of approximately 0.2 mg/ml in a1:4 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

DAS is a potent, trichothecene mycotoxin produced by certain *Fusarium* strains, which play an important role as plant pathogens, causing a wide range of diseases.[1] It is toxic to fungi, plants, animals, and various mammalian cell cultures, inhibiting *de novo* protein synthesis.[2] In a biological activity assay, DAS was shown to inhibit expression of the *Arabidopsis* MAMP-responsive reporter gene *WRKY29p::GUS* with an $IC_{50}$ value of 50 nM, thereby suppressing a rapid cell death immune response important for plant defense.[3]

### References


1. Bauer, J., Bollwahn, W., Gareis, M., *et al*. Kinetic profiles of diacetoxyscirpenol and two of its metabolites in blood serum of pigs. *Appl. Environ. Microbiol.* **49(4)**, 842-845 (1985).
2. Shams, M., Mitterbauer, R., Corradini, R., *et al*. Isolation and characterization of a new less-toxic derivative of the *Fusarium* mycotoxin diacetoxyscirpenol after thermal treatment. *J. Agric. Food Chem.* **59(17)**, 9709-9714 (2011).
3. Serrano, M., Hubert, D.A., Dangl, J.L., *et al*. A chemical screen for suppressors of the avrRpm1-RPM1-dependent hypersensitive cell death response in *Arabidopsis thaliana*. *Planta*. **231(5)**, 1013-1023 (2010).





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