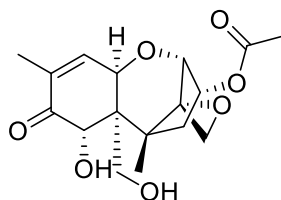


3-Acetyldeoxynivalenol

Code No.: **BIA-A1925**

Pack sizes: **0.1 mg, 0.5 mg**



Synonyms : NSC 267036, 3-ADON

Specifications

CAS #	: 50722-38-8
Molecular Formula	: C ₁₇ H ₂₂ O ₇
Molecular Weight	: 338.35
Source	: <i>Fusarium graminearum</i>
Appearance	: White crystalline solid
Purity	: >95% by HPLC
Long Term Storage	: -20°C
Solubility	: Soluble in methanol or DMSO

Application Notes

3-Acetyldeoxynivalenol is a trichothecene mycotoxin produced by *Fusarium* species, exhibiting dose-dependent reduction of lymphocyte proliferation in mitogen-induced blastogenesis, albeit less potently than deoxynivalenol. In a comparative study of deoxynivalenol and its 3- and 15-acetyl derivatives on transepithelial transport, gene expression, and cytokine secretion in human intestinal cell Caco-2, all metabolites could induce mRNA expression and production of IL-8, with 3-acetyldeoxynivalenol being less potent than its 15-acetyl analogue. 3-Acetyldeoxynivalenol induces lysosomal membrane permeabilization-mediated apoptosis and inhibits autophagic flux in macrophages.

References

1. Comparative study of deoxynivalenol, 3-acetyldeoxynivalenol, and 15-acetyldeoxynivalenol on intestinal transport and IL-8 secretion in the human cell line Caco-2. Kadota T. et al. *Toxicol. In Vitro* 2013, 27, 1888.
2. Inhibitory effect of deoxynivalenol, 3-acetyldeoxynivalenol and zearalenone on induction of rat and human lymphocyte proliferation. Atkinson H.A. AND Miller K. *Toxicol. Lett.* 1984, 23, 215.
3. 3-Acetyldeoxynivalenol induces lysosomal membrane permeabilization-mediated apoptosis and inhibits autophagic flux in macrophages. Liu N. et al. *Environ. Pollut.* 265 (Pt B):114697.