

Product Name: Zearalenone

Catalog No.: 3975

Batch No.: 2

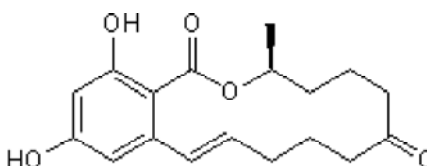
CAS Number: 17924-92-4

EC Number: 241-864-0

IUPAC Name: (3*S*,11*E*)-3,4,5,6,9,10-Hexahydro-14,16-dihydroxy-3-methyl-1*H*-2-benzoxacyclotetradecin-1,7(8*H*)-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₈H₂₂O₅
Batch Molecular Weight: 318.36
Physical Appearance: Off White solid
Solubility: DMSO to 100 mM
 ethanol to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	67.91	6.97	
Found	68.05	7.07	

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Mycotoxin produced by several species of Fusarium fungi. Binds to the estrogen receptor (ER) (IC₅₀ values are 166 and 240 nM for ERβ and ERα respectively) and stimulates the transcriptional activity of both subtypes at concentrations between 1 - 10 nM. Also stimulates growth of T47D breast cancer cells.

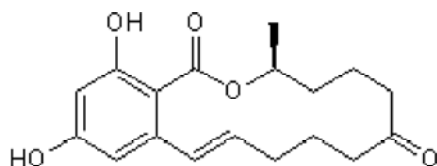
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Solubility & Usage Info:

DMSO to 100 mM

ethanol to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Khosrokhavar et al (2009) Effects of zearalenone and α-Zearalenol in comparison with Raloxifene on T47D cells. *Toxicol.Mech.Methods* **19** 246. PMID: 19730705.

Takemura et al (2007) Characterization of the estrogenic activities of zearalenone and zeranol in vivo and in vitro. *J.Steroid Biochem.Molec.Biol.* **103** 170.

Kuiper et al (1998) Interaction of estrogenic chemicals and phytoestrogens with estrogen receptor β. *Endocrinology* **139** 4252. PMID: 9751507.

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