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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman’s Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Zearalenone
Item No. 11353

CAS Registry No.: 17924-92-4
Formal Name: (3S,11E)-3,4,5,6,9,10-hexahydro-14,16-dihydroxy-3-methyl-1H-2-benzoazacyclotetradecin-1,7(8H)-dione
Synonyms: FES, Mycotoxin F<sub>2</sub>, Toxin F<sub>2</sub>, Zenone
MF: C<sub>18</sub>H<sub>22</sub>O<sub>5</sub>
FW: 318.4
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ<sub>max</sub>: 236, 274, 316 nm

Laboratory Procedures

For long term storage, we suggest that zearalenone be stored as supplied at -20°C. It should be stable for at least two years.

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

Zearalenone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, zearalenone should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Zearalenone has a solubility of approximately 0.12 mg/ml in a 1:7 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Zearalenone is a mycotoxin produced by fungi in food and animal feeds. Although of low acute toxicity, zearalenone activates estrogen receptors, alters hormone levels, and hasten pre-pubertal development, especially in pigs. While pre-pubertal animals appear to be more sensitive to zearalenone than older animals, the toxin can cause uterine, rectal, and vaginal prolapse, abortion, and infertility in older animals. Evidence for zearalenone effects have been observed in a wide variety of animals, including man.

References