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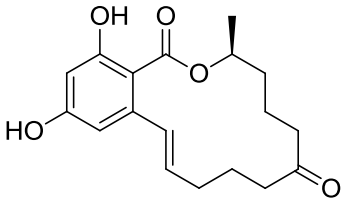
PRODUCT DATA SHEET

Zearalenone

Code No.: **BIA-Z1142**

Pack sizes: **5 mg, 25 mg**



Synonyms : Mycotoxin F2, Toxin F2

Specifications

CAS #	:	**17924-92-4**
Molecular Formula	:	**$C_{18}H_{22}O_5$**
Molecular Weight	:	**318.4**
Source	:	***Fusarium* sp.**
Appearance	:	**White solid**
Purity	:	**>99% by HPLC**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in ethanol, methanol, DMF or DMSO. Limited water solubility.**

Application Notes

Zearalenone is a resorcylic acid lactone produced by a number of Fusarium sp.. Zearalenone acts as a non-steroidal estrogen, binding to estrogen receptor and is uterotropic. Zearalenone induces reproductive problems in animals and, in some animal models, is thought to be a primary initiator of hepatic tumors. In vivo, zearalenone undergoes metabolic reduction to the more estrogenic zearalenol. Contamination of grains, notably maize, by Fusarium species gives rise to high levels of zearalenone and is regarded as an important food quality issue for both human and animal health.

References

1. Identification of the naturally occuring isomer of zearalenol produced by Fusarium roseum 'Gibbosum' in rice culture. Hagler W.M. et al. Appl. Environ. Microbiol. 1979, 37, 849.
2. Estrogenic activity of zearalenone and zearalenol in the neonatal rat uterus. Teratology 1984, 90, 383-392.
3. Binding properties of zearalenone mycotoxins to hepatic estrogen receptors. Powell-Jones W. et al. Mol. Pharmacol. 1981, 20, 35-42.
4. Influence of mycotoxin zearalenone and its derivatives (alpha and beta zearalenol) on apoptosis and proliferation of cultured granulosa cells from equine ovaries. Minervini F. et al. Reprod Biol Endocrinol. 2006, 4, 62.
5. Review on the toxicity, occurrence, metabolism, detoxification, regulations and intake of zearalenone: an oestrogenic mycotoxin. Zinedine A. et al. Food Chem. Toxicol. 2007, 45, 1.

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