
Product Data Sheet

Product Name: β -Zearalenol

Cat. No.: GC38008

Chemical Properties

Cas. No. 71030-11-0

Chemical Name (3S,7S,11E)-3,4,5,6,7,8,9,10-octahydro-7,14,16-trihydroxy-3-methyl-1H-2-benzoxacyclotetradecin-1-one

SMILES OC1=C2C(O[C@H](CCC[C@H](CCC/C=C/C2=CC(O)=C1)O)C)=OFormula $C_{18}H_{24}O_5$

M.Wt 320.38

Solubility DMF: 30 mg/ml, DMSO: 30 mg/ml, DMSO:PBS (pH 7.2) (1:7): 0.1 mg/ml, Ethanol: 20 mg/ml
Store at -20°C, protect from light

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available sizes: ship with RT, or blue ice upon request.

Structure **Background**

β -Zearalenol is a hepatic metabolite of zearalenone, a mycotoxin produced by fungi in food and animal feeds.^{1,2} It is a less potent agonist of estrogen receptors than the parent compound.³ However, β -zearalenol has pronounced effects on uterotrophic activity and sperm acrosome reaction.^{4,5,6}

1. Zinedine, A., Soriano, J.M., Moltó, J.C., et al. Review on the toxicity, occurrence, metabolism, detoxification, regulations and intake of zearalenone: An oestrogenic mycotoxin. *Food Chem. Toxicol.* 45(1):1-18 (2007)
 2. Ueno, Y., and Tashiro, F. α -Zearalenol, a major hepatic metabolite in rats of zearalenone, an estrogenic mycotoxin of *Fusarium* species. *Biochem.* 89(2):563-571 (1981)
 3. Kiang, D.T., Kennedy, B.J., Pathre, S.V., et al. Binding characteristics of zearalenone analogs to estrogen receptors. *Cancer Res.* 38(11 Pt 1):3611-3615 (1978)
 4. Mirocha, C.J., Pathre, S.V., Behrens, J., et al. Uterotrophic activity

Caution: Product has not been fully validated for medical applications. For research use only.

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of cis and trans isomers of zearalenone and zearalenol Appl. Environ. Microbiol.35(5)986-987(1978) 5.Filannino, A., Stout, T.A.E., Gadella, B.M., et al.Dose-response effects of estrogenic mycotoxins (zearalenone, alpha- and beta-zearalenol) on motility, hyperactivation and the acrosome reaction of stallion sperm Reprod. Biol. Endocrinol.9134(2011) 6.Wang, H., Camargo Rodriguez, O., and Memili, E.Mycotoxin α -zearalenol impairs the quality of preimplantation porcine embryos J. Reprod. Dev.58(3)338-343(2012)

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