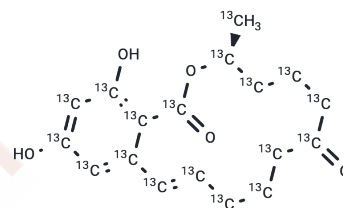


Zearalenone-13C18

Chemical Properties

CAS No. :	911392-43-3
Formula:	C ₁₈ H ₂₂ O ₅
Molecular Weight:	336.231
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Zearalenone-13C18 is intended for use as an internal standard for the quantification of zearalenone by GC- or LC-MS. Zearalenone (T5625) is a mycotoxin that has been found in <i>Fusarium</i> and has estrogenic activities. It binds to human estrogen receptor α (ER α) and ER β (IC ₅₀ s = 9 and 5.8 nM, respectively). ² Zearalenone induces precocious development of mammary tissues in young female pigs and prepubertal enlargement in young male pigs. ³ Zearalenone (1.5-5 mg/kg of diet) induces hyperestrogenism in pigs. It also induces degeneration of meiotic chromatin in oocytes and reduces fertility in pigs when administered at a dose of 200 μ g/kg. ⁴ Zearalenone has been found as a contaminant in wheat, maize, and barley and livestock feeds. ^{3,4}
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Solubility Information

Solubility	Acetonitrile: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9742 mL	14.8708 mL	29.7415 mL
5 mM	0.5948 mL	2.9742 mL	5.9483 mL
10 mM	0.2974 mL	1.4871 mL	2.9742 mL
50 mM	0.0595 mL	0.2974 mL	0.5948 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

- 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)
- Kuiper, G.G.J.M., Lemmen, J.G., Carlsson, B., et al. Interaction of estrogenic chemicals and phytoestrogens with estrogen receptor β *Endocrinology* 139(10)4252-4263(1998)
- Richard, J.L. Some major mycotoxins and their mycotoxicoses—an overview *Int. J. Food Microbiol.* 119(1-2)3-10(2007)
- Tiemann, U., and D?nicke, S. In vivo and in vitro effects of the mycotoxins zearalenone and deoxynivalenol on different non-reproductive and reproductive organs in female pigs: A review *Food Addit. Contam.* 24(3)306-314 (2007)

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