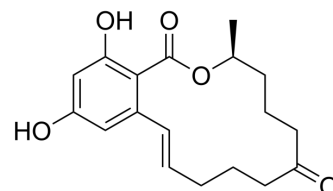


Zearalenone

Cat. No.:	HY-103447
CAS No.:	17924-92-4
Molecular Formula:	C ₁₈ H ₂₂ O ₅
Molecular Weight:	318.36
Target:	Estrogen Receptor/ERR
Pathway:	Vitamin D Related/Nuclear Receptor
Storage:	4°C, stored under nitrogen * In solvent : -80°C, 1 years; -20°C, 6 months (stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (314.11 mM; Need ultrasonic)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	3.1411 mL	15.7055 mL	31.4110 mL
				5 mM	0.6282 mL	3.1411 mL	6.2822 mL
				10 mM	0.3141 mL	1.5705 mL	3.1411 mL
Please refer to the solubility information to select the appropriate solvent.							
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (6.53 mM); Clear solution						
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (6.53 mM); Clear solution						
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (6.53 mM); Clear solution						

BIOLOGICAL ACTIVITY

Description	Zearalenone is a mycotoxin produced mainly by fungi belonging to the genus <i>Fusarium</i> in foods and feeds. Possess oestrogenic activity in pigs, cattle and sheep, with low acute toxicity. Causes precocious development of mammae and other estrogenic effects in young gilts ^{[1][2]} .
In Vivo	Zearalenone is frequently implicated in reproductive disorders of farm animals and occasionally in hyperoestrogenic syndromes in humans. There is evidence that ZEA and its metabolites possess oestrogenic activity in pigs, cattle and sheep. However, ZEA is of a relatively low acute toxicity after oral or interperitoneal administration in mice, rat and pig ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Anal Chem. 2022 Feb 22;94(7):3400-3407.
- Anal Chim Acta. 1 November 2022, 340478.
- Food Funct. 07 Jun 2022.
- Biometals. 2022 May 5.

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REFERENCES

[1]. Zinedine A, et al. Review on the toxicity, occurrence, metabolism, detoxification, regulations and intake of zearalenone: an oestrogenic mycotoxin. Food Chem Toxicol. 2007 Jan;45(1):1-18.

[2]. Richard JL, et al. Some major mycotoxins and their mycotoxicoses--an overview. Int J Food Microbiol. 2007 Oct 20;119(1-2):3-10.

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

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