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## Produktinformation



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# PRODUCT INFORMATION



## **α-Zearalanol**

Item No. 23424

CAS Registry No.: 26538-44-3

Formal Name: (3S,7R)-3,4,5,6,7,8,9,10,11,12-decahydro-7,14,16-trihydroxy-3-methyl-1H-2-benzoxacyclotetradecin-1-one

Synonyms: MK-188, (-)- $\alpha$ -Zearalanol

MF: C<sub>18</sub>H<sub>26</sub>O<sub>5</sub>

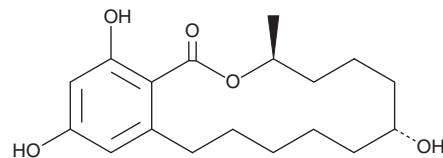
FW: 322.4

Purity: ≥99%

Supplied as: A solid

Storage: -20°C

Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

## Laboratory Procedures

$\alpha$ -Zearalanol is supplied as a solid. A stock solution may be made by dissolving the  $\alpha$ -zearalanol in the solvent of choice.  $\alpha$ -Zearalanol is soluble in organic solvents such as ethanol, methanol, DMSO, and dimethyl formamide, which should be purged with an inert gas.

$\alpha$ -Zearalanol is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

## Description

$\alpha$ -Zearalanol is an active metabolite formed by reduction of  $\alpha$ -zearalenol (Item No. 16549), an estrogen receptor antagonist.<sup>1</sup>  $\alpha$ -Zearalanol inhibits [<sup>3</sup>H]estradiol binding to estrogen receptors (ERs) on calf uterus in a dose-dependent manner. Dietary  $\alpha$ -zearalanol (10 mg/kg per day) increases endometrial thickness, bone mineral density, and serum levels of alkaline phosphatase in ovariectomized rats.<sup>2</sup> It also decreases sperm count and motility and serum levels of testosterone (Item Nos. 15645 | ISO60154), follicle-stimulating hormone (FSH), and luteinizing hormone (LH) in male mice.<sup>3</sup>

## References

1. 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).
2. Li, S., Zhang, W., Duan, F., et al. The preventive and therapeutic roles of phytoestrogen  $\alpha$ -zearalanol on osteoporetic rats due to ovariectomy. *Iran J. Basic Med. Sci.* **19(11)**, 1216-1221 (2016).
3. Bo, C., Zhao, W., Jia, Q., et al. Effects of  $\alpha$ -zearalanol on spermatogenesis and sex hormone levels of male mice. *Int. J. Clin. Exp. Med.* **8(11)**, 20002-20013 (2015).

### 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

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