

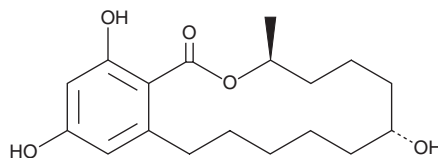
# PRODUCT INFORMATION



## $\alpha$ -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:**  $\geq 95\%$   
**UV/Vis.:**  $\lambda_{\text{max}}$ : 219, 266, 304 nm  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:**  $\geq 4$  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, which should be purged with an inert gas.  $\alpha$ -Zearalanol is soluble in ethanol, methanol, DMSO, and dimethyl formamide.

### 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, 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 ovariectomization. *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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