

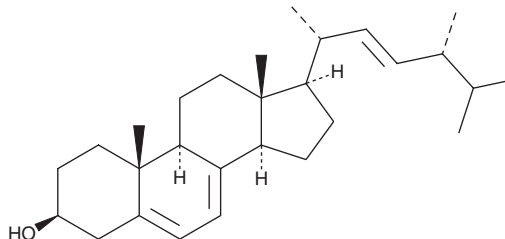
# PRODUCT INFORMATION



## Ergosterol

Item No. 19850

**CAS Registry No.:** 57-87-4  
**Formal Name:** (3 $\beta$ ,22E)-ergosta-5,7,22-trien-3-ol  
**Synonym:** Provitamin D<sub>2</sub>  
**MF:** C<sub>28</sub>H<sub>44</sub>O  
**FW:** 396.7  
**Purity:**  $\geq$ 85%  
**UV/Vis.:**  $\lambda_{\text{max}}$ : 271, 282, 293 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:**  $\geq$ 4 years  
**Item Origin:** Plant/Bagasse fermentation



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

### Laboratory Procedures

Ergosterol is supplied as a crystalline solid. A stock solution may be made by dissolving the ergosterol in the solvent of choice, which should be purged with an inert gas. Ergosterol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of ergosterol in these solvents is approximately 0.5, 0.1, and 2 mg/ml, respectively.

Ergosterol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ergosterol should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Ergosterol has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Ergosterol is a sterol that is found predominantly in membranes of fungi. It is converted into vitamin D<sub>2</sub> (Item No. 11791) by ultraviolet light.<sup>1</sup> Ergosterol and its biosynthetic pathway are significant targets for some fungicides.<sup>2-4</sup>

### References

1. Bikle, D. D. Vitamin D metabolism, mechanism of action, and clinical applications. *Chem. Biol.* **21(3)**, 319-329 (2014).
2. Ogita, A., Fujita, K., and Tanaka, T. Enhancing effects on vacuole-targeting fungicidal activity of amphotericin B. *Front. Microbiol.* **3(100)**, 1-6 (2012).
3. Fromtling, R. A. Overview of medically important antifungal azole derivatives. *Clin. Microbiol. Rev.* **1(2)**, 187-217 (1988).
4. Carillo-Muñoz, A. J., Giusiano, G., Ezkurra, P. A., et al. Antifungal agents: Mode of action in yeast cells. *Rev. Esp. Quimioter.* **19(2)**, 130-139 (2006).

#### 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.

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