

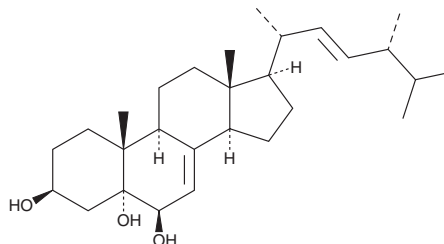
# PRODUCT INFORMATION



## Cerevisterol

Item No. 28466

CAS Registry No.: 516-37-0  
Formal Name: (3 $\beta$ ,5 $\alpha$ ,6 $\beta$ ,22E)-ergosta-7,22-diene-3,5,6-triol  
MF: C<sub>28</sub>H<sub>46</sub>O<sub>3</sub>  
FW: 430.7  
Purity:  $\geq$ 70%  
Supplied as: A solid  
Storage: -20°C  
Stability:  $\geq$ 4 years  
Item Origin: Fungus/*Trichoderma* sp.



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

### Laboratory Procedures

Cerevisterol is supplied as a solid. A stock solution may be made by dissolving the cerevisterol in the solvent of choice, which should be purged with an inert gas. Cerevisterol is soluble in ethanol, methanol, and DMSO.

### Description

Cerevisterol is an ergosterol fungal metabolite originally isolated from *S. cerevisiae* that has diverse biological activities, including antimicrobial, anti-inflammatory, and anticancer properties.<sup>1</sup> It is active against the bacteria *S. typhi*, *S. aureus*, and *E. faecalis* (MICs = 25, 25, and 50  $\mu$ g/ml, respectively) and the fungus *A. niger* (MIC = 25  $\mu$ g/ml), but has no effect on the bacteria *E. coli*, *P. aeruginosa*, *S. pyogenes*, *K. pneumoniae*, and *B. subtilis*, or the fungi *C. albicans*, *A. flavus*, and *A. tamarii* when used at concentrations up to 400  $\mu$ g/ml.<sup>2</sup> Cerevisterol (2-20  $\mu$ M) inhibits LPS-induced increases in the levels of nitric oxide (NO), TNF- $\alpha$ , IL-6, IL-10, and prostaglandin E<sub>2</sub> (PGE<sub>2</sub>; Item No. 14010) in RAW 264.7 cells.<sup>3</sup> It inhibits proliferation of MCF-7, MDA-MB-231, and Caco-2 cancer cells (EC<sub>50</sub>s = 64.5, 52.4, and 37.6  $\mu$ M, respectively), but not PC3, PANC-1, or A549 cells (IC<sub>50</sub> = >100  $\mu$ M for all).<sup>4,5</sup>

### References

1. Bills, C.E. and Honeywell, E.M. Antirickettic substances: VIII. Studies on highly purified ergosterol and its esters. *J. Biol. Chem.* **80**, 15-23 (1928).
2. Appiah, T., Agyare, C., Luo, Y., *et al.* Antimicrobial and resistance modifying activities of cerevisterol isolated from *Trametes* species. *Curr. Bioact. Compd.* **14**, (2018).
3. Liu, Y.-W., Mei, H.-C., Su, Y.-W., *et al.* Inhibitory effects of *Pleurotus tuber-regium* mycelia and bioactive constituents on LPS-treated RAW 264.7 cells. *J. Funct. Foods* **7**, 662-670 (2014).
4. Wang, H., Liu, T., and Xin, Z. A new glucitol from an endophytic fungus *Fusarium equiseti* Salicorn 8. *Eur. Food Res. Technol.* **239(3)**, 365-376 (2014).
5. Wang, Q.-X., Li, S.-F., Zhao, F., *et al.* Chemical constituents from endophytic fungus *Fusarium oxysporum*. *Fitoterapia* **82(5)**, 777-781 (2011).

#### 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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