

Product Data Sheet

Product Name: Cerevisterol

Cat. No.: GC45716

Chemical Properties

Cas. No. 516-37-0

SMILES C[C@H](/C=C/[C@H](C)C(C)C)[C@@]1([H])CC[C@@]2([H])C3=C[C@@H](O)[C@@]4(O)C[C@@H](O)CC[C@]4(C)[C@@]3([H])CC[C@@]21C

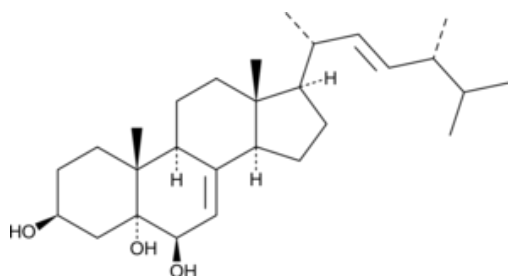
Formula C₂₈H₄₆O₃ M.Wt 430.7

Solubility DMSO: soluble, Ethanol: soluble, Methanol: soluble Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available sizes: ship with RT, or blue ice upon request.

Structure



Background

Cerevisterol is an ergosterol fungal metabolite originally isolated from *S. cerevisiae* that has diverse biological activities, including antimicrobial, anti-inflammatory, and anticancer properties.¹ It is active against the bacteria *S. typhi*, *S. aureus*, and *E. faecalis* (MICs = 25, 25, and 50 µg/ml, respectively) and the fungus *A. niger* (MIC = 25 µg/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 µg/ml.² Cerevisterol (2-20 µM) inhibits LPS-induced increases in the levels of nitric oxide (NO), TNF-α, IL-6, IL-10, and prostaglandin E₂ in RAW 264.7 cells.³ It inhibits proliferation of MCF-7, MDA-MB-231, and Caco-2 cancer cells (EC₅₀s = 64.5, 52.4, and 37.6 µM, respectively), but not PC3, PANC-1, or A549 cells (IC₅₀ = >100 µM for all).^{4,5}

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

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|1. Bills, C.E., and Honeywell, E.M. Antiricketic 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).

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