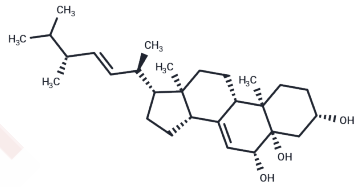
Data Sheet (Cat.No.TMA0984)

TargetMol

Cerevisterol

Chemical Properties



CAS No. : 516-37-0

Formula: C28H46O3

Molecular Weight: 430.66

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Cerevisterol is a cytotoxic steroid, can inhibit the activity of DNA polymerase alpha. It can stimulate NGF-mediated neurite outgrowth on PC12 cells. Cerevisterol acts as a natural agent for treating inflammatory diseases by targeting an MAPK, NF-κB, AP-1, and Nrf2-mediated HO-1 signaling cascade.
Targets(IC50)	DNA/RNA Synthesis
In vitro	Cerevisterol suppresses the LPS-induced production of NO and PGE2, which is a plausible mechanism for this effect is by reducing the expression of iNOS and COX-2. Cerevisterol also decreases the expression of pro-inflammatory cytokines, such as TNF-α, IL-6, and IL-1β. Cerevisterol halted the nuclear translocation of NF-κB by blocking the phosphorylation of inhibitory protein κBα (IκBα) and suppressing NF-κB transactivation. The mitogen-activated protein kinases (MAPK) signaling pathways are also suppressed. Cerevisterol treatment also inhibited the transactivation of AP-1 and the phosphorylation of c-Fos. Furthermore, Cerevisterol could induce the nuclear translocation of nuclear factor erythroid 2-related factor 2 (Nrf2) by down-regulating Kelch-like ECH-associated protein 1 (Keap-1) and up-regulating hemeoxygenases-1 (HO-1) expression.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.322 mL	11.6101 mL	23.2202 mL
5 mM	0.4644 mL	2.322 mL	4.644 mL
10 mM	0.2322 mL	1.161 mL	2.322 mL
50 mM	0.0464 mL	0.2322 mL	0.4644 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Koolen HH, et al. An antimicrobial diketopiperazine alkaloid and co-metabolites from an endophytic strain of Gliocladium isolated from Strychnos cf. toxifera. Nat Prod Res. 2012 Nov;26(21):2013-9.
Mizushina Y, et al. Lucidenic acid O and lactone, new terpene inhibitors of eukaryotic DNA polymerases from a basidiomycete, Ganoderma lucidum. Bioorg Med Chem. 1999 Sep;7(9):2047-52.
Alam MB, et al. Cerevisterol Alleviates Inflammation via Suppression of MAPK/NF-κB/AP-1 and Activation of the Nrf2/HO-1 Signaling Cascade. Biomolecules. 2020 Jan 29;10(2):199.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481