

**Product Name** : Cerevisterol

**Synonyms** : —

**Cat No.** : M29031

**CAS Number** : 516-37-0

**Molecular Formula** : C<sub>28</sub>H<sub>46</sub>O<sub>3</sub>

**Formula Weight** : 430.7

**Chemical Name** : —

**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. (In Vitro): Cerevisterol suppresses the LPS-induced production of NO and PGE<sub>2</sub>, 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.

**Pathway** : Cell Cycle/DNA Damage

**Target** : DNA/RNA Synthesis

**Receptor** : DNA/RNA Synthesis

**Solubility** : —

**SMILES** : CC(C)[C@@H](C)C=C[C@@H](C)[C@@H](CC1)[C@@](C)CC[C@@H]2[C@@](C)(CC[C@@H](C3)O)[C@@]33O[C@@H]1C2=C[C@H]3O

**Storage** : (-20°C)

**Stability** : ≥ 2 years

**Reference** :