

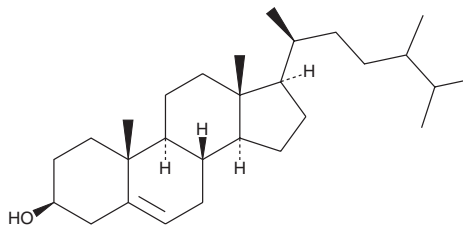
# PRODUCT INFORMATION



## 24-methyl Cholesterol

Item No. 17344

CAS Registry No.: 23929-42-2  
Formal Name: (3 $\beta$ ,24 $\xi$ )-ergost-5-en-3-ol  
MF: C<sub>28</sub>H<sub>48</sub>O  
FW: 400.7  
Purity:  $\geq$ 95%  
Supplied as: A crystalline solid  
Storage: -20°C  
Stability:  $\geq$ 4 years



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

### Laboratory Procedures

24-methyl Cholesterol is supplied as a crystalline solid. A stock solution may be made by dissolving the 24-methyl cholesterol in the solvent of choice, which should be purged with an inert gas. 24-methyl Cholesterol is soluble in organic solvents such as ethanol and dimethyl formamide. The solubility of 24-methyl cholesterol in these solvents is approximately 0.25 and 1 mg/ml, respectively.

### Description

24-methyl Cholesterol is a phytosterol found in vegetables, fruits, nuts, and seeds that competitively inhibits the absorption of intestinal cholesterol and decreases the transcription of genes important for cholesterol metabolism.<sup>1</sup> The cholesterol lowering effects of phytosterols, such as 24-methyl cholesterol, have been reported to be beneficial for lowering the incidence of atherosclerotic plaques.<sup>2</sup> 24-methyl Cholesterol can also act as an agonist at liver X receptors (LXR) and, through activation of LXR signaling, has been shown to suppress the proliferation of prostate and breast cancer cells.<sup>3</sup>

### References

1. Segura, R., Javierre, C., Lizarraga, M.A., *et al.* Other relevant components of nuts: Phytosterols, folate and minerals. *Br. J. Nutr.* **96(Suppl 2)**, S36-S44 (2006).
2. Mannarino, E., Pirro, M., Cortese, C., *et al.* Effects of a phytosterol-enriched dairy product on lipids, sterols and 8-isoprostane in hypercholesterolemic patients: A multicenter Italian study. *Nutr. Metab. Cardiovasc. Dis.* **19(2)**, 84-90 (2009).
3. Chuu, C.-P., Kokontis, J.M., Hiipakka, R.A., *et al.* Modulation of liver X receptor signaling as novel therapy for prostate cancer. *J. Biomed. Sci.* **14(5)**, 543-553 (2007).

#### 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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