

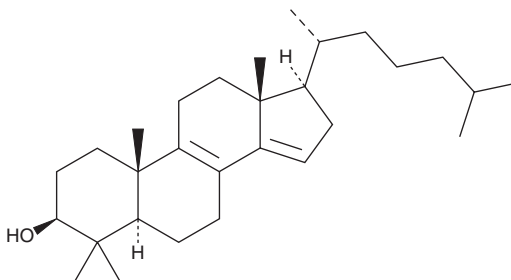
PRODUCT INFORMATION



Dihydro FF-MAS

Item No. 29530

CAS Registry No.: 19456-83-8
Formal Name: (3 β ,5 α)-4,4-dimethyl-cholesta-8,14-dien-3-ol
Synonyms: Dihydro Follicular Fluid Meiosis-activating Sterol, MAS-412
MF: C₂₉H₄₈O
FW: 412.7
Purity: $\geq$ 98%
Supplied as: A 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

Dihydro FF-MAS is supplied as a solid. A stock solution may be made by dissolving the dihydro FF-MAS in the solvent of choice, which should be purged with an inert gas. Dihydro FF-MAS is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of dihydro FF-MAS in these solvents is approximately 20, 0.1, and 2 mg/ml, respectively.

Dihydro FF-MAS is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, dihydro FF-MAS should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Dihydro FF-MAS has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Dihydro follicular fluid meiosis-activating sterol (dihydro FF-MAS) is an intermediate in the biosynthesis of cholesterol in the Kandutsch-Russell pathway.¹ It is formed from dihydrolanosterol by lanosterol 14 α -demethylase, also known as cytochrome P450 (CYP) isoform CYP51A1, and is subsequently converted to dihydro T-MAS (Item No. 29532).^{1,2} Dihydro FF-MAS induces resumption of meiosis in isolated mouse naked oocytes and cumulus-enclosed oocytes.³

References

1. Mitsche, M.A., McDonald, J.G., Hobbs, H.H., *et al.* Flux analysis of cholesterol biosynthesis in vivo reveals multiple tissue and cell-type specific pathways. *eLife* 4, e07999 (2015).
2. McCarty, K.D., Sullivan, M.E., Tateishi, Y., *et al.* Processive kinetics in the three-step lanosterol 14 α -demethylation reaction catalyzed by human cytochrome P450 51A1. *J. Biol. Chem.* **299**(7), 104841 (2023).
3. Byskov, A.G., Andersen, C.Y., Nordholm, L., *et al.* Chemical structure of sterols that activate oocyte meiosis. *Nature* **374**(6522), 559-562 (1995).

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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