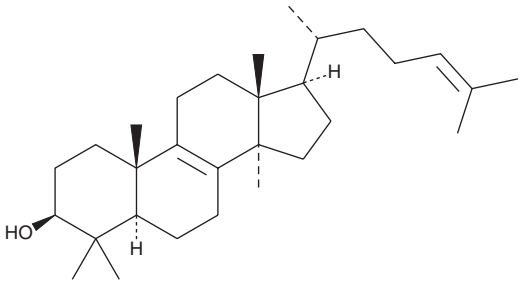
PRODUCT INFORMATION

Lanosterol

Item No. 19521

CAS Registry No.:	79-63-0
Formal Name:	lanosta-8,24-dien-3β-ol
Synonyms:	8,24-Lanostadien-3β-ol,3β-hydroxy-8,24-Lanostadiene, NSC60677
MF:	$C_{30}H_{50}O$
FW:	426.7
Purity:	≥95%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

Lanosterol is supplied as a crystalline solid. A stock solution may be made by dissolving the lanosterol in the solvent of choice, which should be purged with an inert gas. Lanosterol is soluble in organic solvents such as ethanol and dimethyl formamide. The solubility of lanosterol in these solvents is approximately 0.25 mg/ml and 3 mg/ml, respectively.

Lanosterol is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Lanosterol is a naturally-occurring sterol and biosynthetic precursor of several animal, fungal, and protozoan steroids, including cholesterol and ergosterol.[1-3] Defects in the processing of lanosterol contribute to a wide variety of disorders, including the formation of cataracts.[2,4] Similarly, certain fungicides act by blocking lanosterol processing by fungi.[5,6]

References

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4. Zhao, L., Chen, X.-J., Zhu, J., *et al.* Lanosterol reverses protein aggregation in cataracts. *Nature* **523(7562)**, 607-611 (2015).
5. Asami, T., Mizutani, M., Shimada, U., *et al.* Triadimefon, a fungicidal triazole-type P450 inhibitor, induces brassinosteroid deficiency-like phenotypes in plants and binds to DWF4 protein in the brassinosteroid biosynthesis pathway. *Biochem. J.* **369 (Pt 1)**, 71-76 (2003).
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