

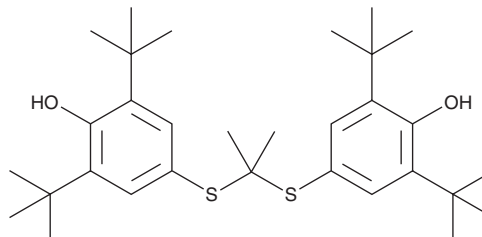
PRODUCT INFORMATION



Probucol

Item No. 15043

CAS Registry No.: 23288-49-5
Formal Name: 4,4'-[(1-methylethylidene)bis(thio)]bis[2,6-bis(1,1-dimethylethyl)phenol]
Synonyms: DH 581, Lorelco, NSC 86225, NSC 652160
MF: C₃₁H₄₈O₂S₂
FW: 516.8
Purity: ≥98%
UV/Vis.: λ_{max}: 207, 243 nm
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

Probucol is supplied as a crystalline solid. A stock solution may be made by dissolving the probucol in the solvent of choice, which should be purged with an inert gas. Probucol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of probucol in these solvents is approximately 25, 20, and 30 mg/ml, respectively.

Probucol 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

Probucol is a potent antioxidant that inhibits the oxidation of cholesterol in LDL, which prevents the formation of macrophage-derived foam cells that lead to atherosclerotic vascular lesions.¹ Probucol's use is limited, however, because it leads to the reduction of HDL cholesterol as well.¹ Probucol inhibits up to 80% efflux of cholesterol from J774 macrophages by impairing the translocation of ATP-binding cassette transporter A1 from intracellular compartments to the plasma membrane.² In an *in vivo* mouse model of Huntington's disease, 3.5 mg/kg/day probucol was shown to be protective against behavioral and striatal oxidative damage by increasing the activity of glutathione peroxidase.³

References

1. Yamamoto, A. A unique antilipidemic drug--probucol. *J. Atheroscler. Thromb.* **15(6)**, 304-305 (2013).
2. Favari, E., Zanotti, I., Zimetti, F., *et al.* Probucol inhibits ABCA1-mediated cellular lipid efflux. *Arterioscler. Thromb. Vasc. Biol.* **24(12)**, 2345-2350 (2004).
3. Colle, D., Santos, D.B., Moreira, E.L.G., *et al.* Probucol increases striatal glutathione peroxidase activity and protects against 3-nitropropionic acid-induced pro-oxidative damage in rats. *PLoS One* **8(6)**, e67658 (2013).

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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