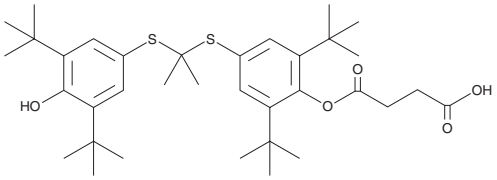
PRODUCT INFORMATION

Succinobucol

Item No. 30886

CAS Registry No.: 216167-82-7
Formal Name: butanedioic acid, 1-[4-[[1-[[3,5-*bis*(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-*bis*(1,1-dimethylethyl)phenyl] ester
Synonyms: AGI-1067, Probucol Monosuccinate
MF: $C_{35}H_{52}O_5S_2$
FW: 616.9
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

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

Description

Succinobucol is a metabolically stable derivative of probucol (Item No. 15043) with diverse biological activities.[1-3] It inhibits hydrogen peroxide-induced oxidation of the redox-sensitive dye H_2DCF in human pulmonary artery endothelial cells (HPAECs) and U937 cells when used at concentrations of 5 and 10 µM.[1] Succinobucol (0.3-10 µM) reduces LPS-induced production of IL-6, IL-1β, and TNF-α in peripheral blood mononuclear cells (PBMCs). It suppresses TNF-α-induced vascular cell adhesion molecule 1 (VCAM-1) promoter reporter gene expression in human aortic endothelial cells.[3] Succinobucol (50 and 100 mg/kg) lowers plasma LDL levels and increases HDL levels in hypercholesterolemic cynomolgus monkeys.[2] It also inhibits the formation of aortic atherosclerotic plaques in *ApoE*$^{-/-}$ or *Ldlr*$^{-/-}$ mice.

References

1. Kunsch, C., Luchoomun, J., Grey, J.Y., *et al.* Selective inhibition of endothelial and monocyte redox-sensitive genes by AGI-1067: a novel antioxidant and anti-inflammatory agent. *J. Pharmacol. Exp. Ther.* **308(3)**, 820-829 (2004).
2. Sundell, C.L., Somers, P.K., Meng, C.Q., *et al.* AGI-1067: a multifunctional phenolic antioxidant, lipid modulator, anti-inflammatory and antiatherosclerotic agent. *J. Pharmacol. Exp. Ther.* **305(3)**, 1116-1123 (2003).
3. Wasserman, M.A., Sundell, C.L., Kunsch, C., *et al.* Chemistry and pharmacology of vascular protectants: a novel approach to the treatment of atherosclerosis and coronary artery disease. *Am. J. Cardiol.* **91(3A)**, 34A-40A (2003).

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