

Product Name: Probutol

Catalog No.: 2775

Batch No.: 2

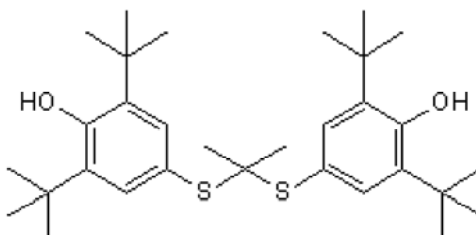
CAS Number: 23288-49-5

EC Number: 245-560-9

IUPAC Name: 4,4'-[(1-Methylethylidene)bis(thio)]bis[2,6-bis(1,1-dimethylethyl)phenol]

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₁H₄₈O₂S₂
Batch Molecular Weight: 516.84
Physical Appearance: White solid
Solubility: DMSO to 25 mM
ethanol to 100 mM
Storage: Desiccate at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	72.04	9.36	
Found	72.13	9.6	

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

Product Name: Probucol

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IUPAC Name: 4,4'-[(1-Methylethylidene)bis(thio)]bis[2,6-bis(1,1-dimethylethyl)phenol]

Description:

ABCA1 (CERP) inhibitor. Inhibits cholesterol efflux from J774 macrophages expressing ABCA1 by up to 80%. Inhibits atherogenesis in genetically hypercholesterolemic rabbits (Watanabe) and attenuates ischemia/reperfusion-induced cardiomyocyte apoptosis. Antioxidant, anti-inflammatory and hypocholesterolemic agent.

Physical and Chemical Properties:

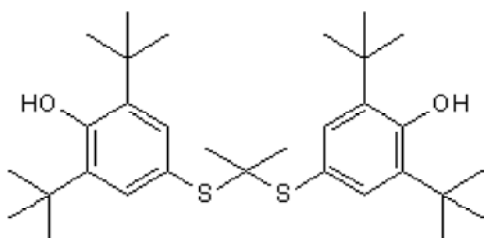
Batch Molecular Formula: C₃₁H₄₈O₂S₂

Batch Molecular Weight: 516.84

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Desiccate at +4°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 25 mM

ethanol to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Wu et al (2007) Probucol [4,4'-[(1-methylethylidene)bis(thio)]bis-[2,6-bis(1,1-dimethylethyl)phenol]] inhibits compensatory remodeling and promotes lumen loss associated with atherosclerosis in apolipoprotein E-deficient mice. *J.Pharmacol.Exp.Ther.* **321** 477. PMID: 17293560.

Ruixing et al (2006) Pretreatment with probucol attenuates cardiomyocyte apoptosis in a rabbit model of ischemia/reperfusion. *Scand.J.Clin.Lab.Invest.* **66** 549. PMID: 17101546.

Favari et al (2004) Probucol inhibits ABCA1-mediated cellular lipid efflux. *Arterioscler.Thromb.Vasc.Biol.* **24** 2345. PMID: 15514211.

Wu et al (2004) Probucol inactivates ABCA1 in the plasma membrane with respect to its mediation of apolipoprotein binding and high density lipoprotein assembly and to its proteolytic degradation. *J.Biol.Chem.* **279** 30168. PMID: 15140889.

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