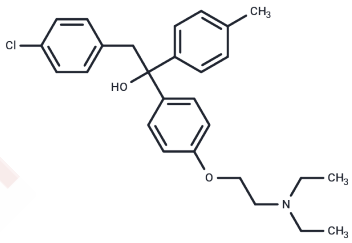
Data Sheet (Cat.No.T26296)

TargetMol

Triparanol

Chemical Properties



CAS No. : 78-41-1

Formula: C27H32ClNO2

Molecular Weight: 438

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Triparanol (NSC-65345) interferes with posttranslational modification of Hedgehog signaling molecules as well as the sterol sensing domain of its receptor PTCH1, leading to down-regulation of Hedgehog signaling. Triparanol suppresses human tumor growth and is an antilipemic agent with high ophthalmic toxicity.
Targets(IC50)	Apoptosis,Hedgehog/Smoothened
In vitro	Triparanol is an effective cholesterol biosynthesis inhibitor blocking the 24-dehydrocholesterol reductase. Triparanol can block proliferation and induce apoptosis in multiple human cancer cells including lung, breast, liver, pancreatic, prostate cancer, and melanoma cells, and growth inhibition can be rescued by the exogenous addition of cholesterol[2].

Solubility Information

Solubility	DMSO: 250 mg/mL (570.78 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10 mg/mL (22.83 mM),Suspension. 10% DMSO+90% Saline: < 10 mg/mL (22.83 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2831 mL	11.4155 mL	22.8311 mL
5 mM	0.4566 mL	2.2831 mL	4.5662 mL
10 mM	0.2283 mL	1.1416 mL	2.2831 mL
50 mM	0.0457 mL	0.2283 mL	0.4566 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Officioso A, et al. Triggering of Erythrocyte Death by Triparanol. Toxins (Basel). 2015 Aug 24;7(8):3359-71.
Bi X, et al. Triparanol suppresses human tumor growth in vitro and in vivo [published correction appears in Biochem Biophys Res Commun. 2012 Nov 2;427(4):808]. Biochem Biophys Res Commun. 2012;425(3):613-618.
Ramu A, Glaubiger D, Fuks Z. Reversal of acquired resistance to doxorubicin in P388 murine leukemia cells by tamoxifen and other triparanol analogues. Cancer Res. 1984 Oct;44(10):4392-5.
Mizuno GR, Chapman CJ, Chipault JR, Pfeiffer DR. Lipid composition and (Na+ + K+)-ATPase activity in rat lens during triparanol-induced cataract formation. Biochim Biophys Acta. 1981 Jun 9;644(1):1-12.