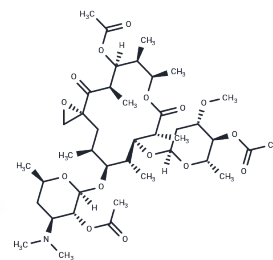


Troleandomycin

Chemical Properties

CAS No. :	2751-09-9
Formula:	C ₄₁ H ₆₇ N ₁ O ₁₅
Molecular Weight:	813.97
Storage:	Store at low temperature, Keep away from direct sunlight Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	Troleandomycin (Triacetyloleandomycin), a macrolide antibiotic, is an orally active and specific CYP3A inhibitor that induces mnemonic speech, induces prolonged cholestasis, and can be used in the study of asthma.
Targets(IC50)	Antibacterial, Antibiotic, Cytochromes P450
In vitro	Troleandomycin significantly inhibits microsomal side chain hydroxylation in mouse and human livers in a dose-dependent manner. [1]
In vivo	Troleandomycin significantly inhibits the 6 β -hydroxylation of testosterone, the 25- and 26-hydroxylation of 5 β -cholestane-3 α , 7 α , and 12 α -triol, and the 23R-, 24R-, 24R-, 5 β -cholestane-3 α , 7 α 24S- and 27-hydroxylation, 12 α , 25-tetrol in recombinant CYP3A4 and microsomes, but the IC ₅₀ value of microsomes is slightly higher than that of recombinant CYP3A4.[2]

Solubility Information

Solubility	DMSO: 50 mg/mL (61.43 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: 2 mg/mL (2.46 mM), Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.2285 mL	6.1427 mL	12.2855 mL
5 mM	0.2457 mL	1.2285 mL	2.4571 mL
10 mM	0.1229 mL	0.6143 mL	1.2285 mL
50 mM	0.0246 mL	0.1229 mL	0.2457 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

Honda A, et al. Side chain hydroxylations in bile acid biosynthesis catalyzed by CYP3A are markedly up-regulated in Cyp27^{-/-} mice but not in cerebrotendinous xanthomatosis. *J Biol Chem.* 2001 Sep 14;276(37):34579-85.

Misaka S, et al. Green tea extract affects the cytochrome P450 3A activity and pharmacokinetics of simvastatin in rats. *Drug Metab Pharmacokinet.* 2013;28(6):514-8.

Pessayre D, Tinel M, Larrey D, Cobert B, Funck-Brentano C, Babany G. Inactivation of cytochrome P-450 by a troleandomycin metabolite. Protective role of glutathione. *J Pharmacol Exp Ther.* 1983 Mar;224(3):685-91. PubMed PMID: 6600790.

Weinberger M, Hudgel D, Spector S, Chidsey C. Inhibition of theophylline clearance by troleandomycin. *J Allergy Clin Immunol.* 1977 Mar;59(3):228-31. PubMed PMID: 300083.

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