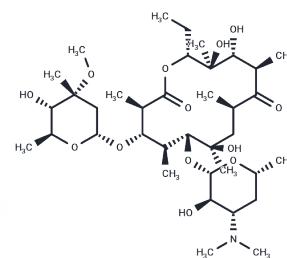


Erythromycin

Chemical Properties

CAS No. :	114-07-8
Formula:	C37H67NO13
Molecular Weight:	733.93
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	Erythromycin (E-Mycin) is a Macrolide and Macrolide Antimicrobial. The physiologic effect of erythromycin is by means of Decreased Sebaceous Gland Activity.
Targets(IC50)	ribosome,Antibacterial,Antibiotic,DNA/RNA Synthesis
In vivo	Chlorthalidone is a thiazide-like diuretic. After oral intake, peak serum concentrations are achieved in 2-6 hours. The half-life of Chlorthalidone is approximately 42 (range 29-55) hours, reaching 45-60 hours after long-term dosing. However, interindividual variability in the half-life of Chlorthalidone is wide. Chlorthalidone is excreted unchanged by the kidneys. The natriuretic effect of Chlorthalidone is maximal at 18 hours and lasts more than 48 hours. Comparing different doses of Chlorthalidone, it has been observed that 25 mg daily is nearly as effective as higher doses, but with less risk of hypokalemia[1]. Chlorthalidone reduces calcium oxalate calculous recurrence but magnesium hydroxide does not. The effectiveness of Chlorthalidone or magnesium hydroxide is examined in the prevention of recurrent calcium oxalate kidney calculi. In a double-blind random allocation design daily dosages of 25 or 50 mg. Chlorthalidone, 650 or 1,300 mg. magnesium hydroxide, or an identical placebo are administered. All groups showed significantly decreased calculous events compared to the pretreatment rates. During the trial 56.1 per cent fewer calculi than predicted developed in the placebo group (p less than 0.01), whereas the groups receiving low and high dosage magnesium hydroxide showed 73.9 and 62.3 per cent fewer calculi, respectively (p less than 0.001 and less than 0.01, respectively). Chlorthalidone treatment results in a 90.1 per cent decrease from predicted rates and both dosages yielded similar results. When the treatments are compared Chlorthalidone is significantly better than the placebo or magnesium hydroxide (p less than 0.01). The large decreases in calculous events seen when placebo or ineffective therapy is given underscore the positive treatment bias that occurs when historical controls are used and they demonstrate the need for proper experimental design[2].

Solubility Information

Solubility	DMSO: 250 mg/mL (340.63 mM),Sonication is recommended. H2O: 3 mg/mL (4.09 mM),Sonication is recommended. Ethanol: 136 mg/mL (185.3 mM),Sonication is recommended.
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Solubility	(< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (6.81 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	1.3625 mL	6.8126 mL	13.6253 mL
5 mM	0.2725 mL	1.3625 mL	2.7251 mL
10 mM	0.1363 mL	0.6813 mL	1.3625 mL
50 mM	0.0273 mL	0.1363 mL	0.2725 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

Moazed D, Noller HF. Biochimie. 1987 Aug;69(8):879-84.

Li H, Li J, Li J, et al. Carrimycin inhibits coronavirus replication by decreasing the efficiency of programmed-1 ribosomal frameshifting through directly binding to the RNA pseudoknot of viral frameshift-stimulatory element. Acta Pharmaceutica Sinica B.2024

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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