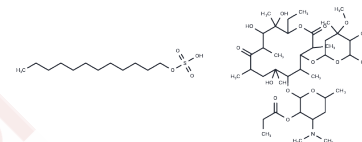


Erythromycin estolate

Chemical Properties

CAS No. :	3521-62-8
Formula:	C52H97NO18S
Molecular Weight:	1056.39
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 estolate is a semi-synthetic derivative of erythromycin with good oral absorption and bioavailability tolerance. As a macrolide antibiotic, Erythromycin exerts its antibacterial action by inhibiting bacterial protein synthesis and is mainly used in studies for the treatment of respiratory, skin and soft tissue infections caused by susceptible bacteria. Erythromycin estolate may cause liver injury, including mild cholestatic hepatitis, jaundice, and paucity of bile ducts.
Targets(IC50)	Anti-infection,Antibacterial,Antibiotic
In vitro	Erythromycin estolate effectively inhibited HCoV-OC43 infection in different cell types and significantly reduced virus titers at safe concentration without cell cytotoxicity. Furthermore, erythromycin estolate was identified to inhibit HCoV-OC43 infection at the early stage and to irreversibly inactivate virus by disrupting the integrity of the viral membrane whose lipid component might be the target of action. Together, it was demonstrated that erythromycin estolate could be a potential therapeutic drug for HCoV-OC43 infection.[1]

Solubility Information

Solubility	DMSO: 45 mg/mL (42.6 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 (1.89 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	0.9466 mL	4.7331 mL	9.4662 mL
5 mM	0.1893 mL	0.9466 mL	1.8932 mL
10 mM	0.0947 mL	0.4733 mL	0.9466 mL
50 mM	0.0189 mL	0.0947 mL	0.1893 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

- Wang X, et al. Erythromycin Estolate Is a Potent Inhibitor Against HCoV-OC43 by Directly Inactivating the Virus Particle. *Front Cell Infect Microbiol.* 2022;12:905248.
- Charoensareerat T, et al. Efficacy and Safety of Enteral Erythromycin Estolate in Combination With Intravenous Metoclopramide vs Intravenous Metoclopramide Monotherapy in Mechanically Ventilated Patients With Enteral Feeding Intolerance: A Randomized, Double-Blind, Controlled Pilot Study. *JPEN J Parenter Enteral Nutr.* 2021;45(6):1309-1318.
- Lu X, et al. Integrated systems toxicology approaches identified the possible involvement of ABC transporters pathway in erythromycin estolate-induced liver injury in rat. *Food Chem Toxicol.* 2014;65:343-55.

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481