

Product Data Sheet

Product Name: Erythromycin

Cat. No.: GC12946

Chemical Properties

Cas. No. 114-07-8

Chemical Name (3R,4S,5S,6R,7R,9R,11R,12R,13S,14R)-6-[(2S,3R,4S,6R)-4-(dimethylamino)-3-hydroxy-6-methyloxan-2-yl]oxy-14-ethyl-7,12,13-trihydroxy-4-[(2R,4R,5S,6S)-5-hydroxy-4-methoxy-4,6-dimethyloxan-2-yl]oxy-3,5,7,9,11,13-hexamethyl-oxacyclotetradecane-2,10-dione

SMILES CCC1C(C(C(C(=O)C(CC(C(C(C(C(C(=O)O1)C)OC2CC(C(C(O2)C)O)(C)OC)C)OC3C(C(CC(O3)C)N(C)C)O)(C)O)C)C)O)(C)O

Formula C₃₇H₆₇NO₁₃

M.Wt 733.93

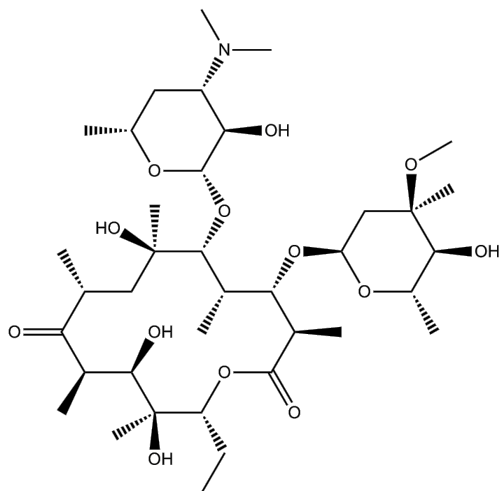
Solubility ≥ 29.5mg/mL in DMSO

Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

Erythromycin is a macrolide antibiotic produced by actinomycete *Streptomyces erythreus* with a

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broad spectrum of antimicrobial activity. Erythromycin acts by binding to bacterial 50S ribosomal subunits and inhibits RNA-dependent protein synthesis by blockage of transpeptidation and/or translocation reactions, without affecting synthesis of nucleic acid[1].

Erythromycin inhibits growth of *P. falciparum* with IC50 and IC90 values of 58.2 μ M and 104.0 μ M, respectively[1].

References:

- [1]. Gribble MJ, et al. Erythromycin. Med Clin North Am. 1982 Jan;66(1):79-89.
- [2]. Nakornchai S, et al. Activity of azithromycin or erythromycin in combination with antimalarial drugs against multidrug-resistant *Plasmodium falciparum* in vitro. Acta Trop. 2006 Dec;100(3):185-91. Epub 2006 Nov 28.

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