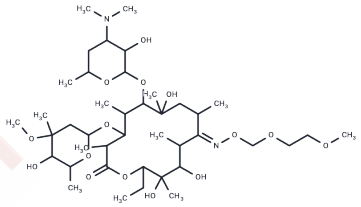
Data Sheet (Cat.No.T1151)

TargetMol

Roxithromycin

Chemical Properties



CAS No. : 80214-83-1

Formula: C41H76N2O15

Molecular Weight: 837.05

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Roxithromycin (RU-28965) is a semi-synthetic macrolide antibiotic derived from erythromycin, exhibiting both antibacterial and anti-malarial properties.
Targets(IC50)	ribosome,Antibacterial,Antibiotic
Kinase Assay	The half-maximal inhibitory concentrations (IC50s) of Fenofibrate, statins (atorvastatin, lovastatin, pravastatin, simvastatin and simvastatin acid, the active form of simvastatin) and glipizide for recombinant human CYP1A2, CYP2B6, CYP2C8, CYP2C9, CYP2C19, CYP2D6, and CYP3A4 are determined using fluorometric CYP450 inhibition assays. Briefly, the drugs are dissolved in methanol or acetonitrile. In 96 well assay plates, the drugs are diluted to a series of concentrations in a solution containing cofactors including NADP+ (final concentration 1.3 mM), MgCl2 (final concentration 3.3 m M), glucose-6-phosphate (G6P, final concentration 3.3 mM) and glucose 6-phosphate dehydrogenase (final concentration 0.4 U/mL). The mixture is pre-incubated at 37°C for 10 min. The enzymes and fluorogenic substrates are diluted to desired concentrations in sodium phosphate reaction buffer (pH 7.4, final concentration 200 mM) and mixed. Reactions are initiated with addition of the enzyme and substrate mixture to the cofactor and drug mixture. The final reaction volume of all assays is 200 µL. After incubating at 37°C for a pre-specified period of time (15 to 45 min), the reactions are stopped with addition of 75 µL quenching solution (0.5 M Tris base or 2N NaOH). Fluorescence is determined using a BioTek Synergy 2 fluorescence reader. Each of the drugs is tested at eight concentrations in duplicate. To estimate IC50s, percent of inhibition is calculated using net fluorescence that is corrected for the background. The values of percent of inhibition are then fitted to a three or four parameter log-logistic model[1].

Solubility Information

Solubility	Ethanol: 154 mg/mL (183.98 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), DMSO: 60 mg/mL (71.68 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.1947 mL	5.9734 mL	11.9467 mL
5 mM	0.2389 mL	1.1947 mL	2.3893 mL
10 mM	0.1195 mL	0.5973 mL	1.1947 mL
50 mM	0.0239 mL	0.1195 mL	0.2389 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.

Reference

Bertho G, et al. Bioorg Med Chem. 1998 Feb;6(2):209-21.
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