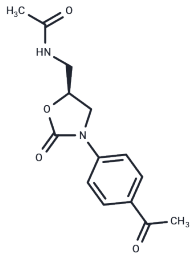
Data Sheet (Cat.No.T38359)

TargetMol

Dup-721

Chemical Properties



CAS No. : 104421-21-8

Formula: C14H16N2O4

Molecular Weight: 276.29

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	DuP-721 is a broad-spectrum, orally active antibacterial agent that inhibits a variety of clinically susceptible and resistant bacteria, particularly [M. tuberculosis].
Targets(IC50)	Antibacterial,Antibiotic
In vitro	DuP-721 (1.5-4 μg/ml) effectively inhibits both conventional antituberculosis drug-susceptible and -resistant Mycobacterium tuberculosis strains without showing cross-resistance to any tested anti-tuberculosis drugs[1]. It is ineffective against M. avium and M. intracellulare up to 250 μg/ml, but inhibits M. gordonoe and M. fortuitum at 3.9 μg/ml, and M. kansasii and M. scrofulaceum at 1.95 μg/ml and 15.6 μg/ml, respectively [1].
In vivo	DuP-721, the first oxazolidinone showed good activity against M. tuberculosis when given orally or parenterally to experimental animals. DuP-721 (oral gavage; 50-160 mg/kg) is protective against M. tuberculosis infection in mice. DuP-721 protects 100% of the infected animals at 50 mg/kg p.o. dose when administered daily for 17 days, and the same effect is observed at 160 mg/kg dose when the drug is administered only on day 11 and 12 post infection[1].

Solubility Information

Solubility	DMSO: 100 mg/mL (361.94 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: 4 mg/mL (14.48 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.6194 mL	18.0969 mL	36.1939 mL
5 mM	0.7239 mL	3.6194 mL	7.2388 mL
10 mM	0.3619 mL	1.8097 mL	3.6194 mL
50 mM	0.0724 mL	0.3619 mL	0.7239 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

Affiliatio, et al. Antimycobacterial activities of oxazolidinones: a review. Infect Disord Drug Targets. 2006 Dec;6(4): 343-54.