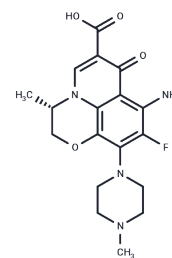


Antofloxacin

Chemical Properties

CAS No. :	119354-43-7
Formula:	C ₁₈ H ₂₁ FN ₄ O ₄
Molecular Weight:	376.388
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	Antofloxacin is a well-tolerated, orally active, and broad-spectrum 8-amino-fluoroquinolone compound that exhibits potent antibacterial properties. It demonstrates superior activity against gyrA mutation-positive Helicobacter pylori strains, particularly in strains with mutations in the Asn87 position, when compared to levofloxacin. Additionally, Antofloxacin acts as a weak but reversible inhibitor of CYP1A2 and is clinically used to treat infections caused by various bacterial species.
Targets(IC50)	Others,Antibacterial,Antibiotic
In vivo	Administered subcutaneously to mice at doses ranging from 2.5 to 160 mg/kg over a 24-hour period, antofloxacin's penetration ratio for total drug concentrations varied between 1.22 and 1.54, showing no relation to the dosage levels [3]. Additionally, antofloxacin elevates plasma theophylline levels by functioning as a mechanism-based inhibitor of the CYP1A2 enzyme. This inhibition effect on the formation of the three metabolites of theophylline demonstrates a dependency on time, concentration, and the presence of NADPH, indicative of mechanism-based inhibition [2].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6568 mL	13.2841 mL	26.5682 mL
5 mM	0.5314 mL	2.6568 mL	5.3136 mL
10 mM	0.2657 mL	1.3284 mL	2.6568 mL
50 mM	0.0531 mL	0.2657 mL	0.5314 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

- He XJ, et al. Efficacy and Safety of Antofloxacin-Based Triple Therapy for Helicobacter pylori Eradication Failure in China [published online ahead of print, 2021 Feb 8]. Dig Dis Sci. 2021;10.1007/s10620-021-06856-z.
- Liu L, et al. Modulation of pharmacokinetics of theophylline by antofloxacin, a novel 8-amino-fluoroquinolone, in humans. Acta Pharmacol Sin. 2011;32(10):1285-1293.
- Zhou YF, et al. In Vivo Pharmacokinetic and Pharmacodynamic Profiles of Antofloxacin against Klebsiella pneumoniae in a Neutropenic Murine Lung Infection Model. Antimicrob Agents Chemother. 2017;61(5):e02691-16. Published 2017 Apr 24.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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