

Moxifloxacin hydrochloride

Chemical Properties

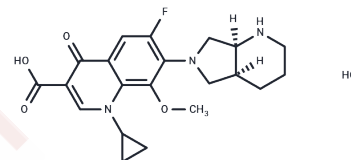
CAS No. : 186826-86-8

Formula: C₂₁H₂₅ClFN₃O₄

Molecular Weight: 437.89

Appearance: no data available

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



Biological Description

Description	Moxifloxacin hydrochloride (BAY12-8039 HCl) is a fourth generation fluoroquinolone with expanded activity against gram-positive bacteria as well as atypical pathogens. Moxifloxacin has been linked to mild ALT elevations during therapy and to rare instances of idiosyncratic acute liver injury with symptoms and jaundice.
Targets(IC50)	Antibacterial,Antibiotic,Topoisomerase
In vitro	In a mouse model simulating human disease, treatment with Moxifloxacin combined with RIF (Rifampicin)/PZA (Pyrazinamide) shortened the therapy duration by two months compared to the standard regimen of INH (Isoniazid)/RIF/PZA. Similarly, biweekly administration of Rifampicin/Moxifloxacin/PZA led to stable cure after four months, whereas daily treatment with Rifampicin/INH/PZA resulted in cure after six months.
In vivo	Moxifloxacin exhibits a broad spectrum of antibacterial activity both in vitro and clinically against various pathogens, including Staphylococcus aureus, Streptococcus pneumoniae, Streptococcus pyogenes, Haemophilus influenzae, H. parainfluenzae, Klebsiella pneumoniae, Moraxella catarrhalis, Chlamydomonas pneumoniae, and Mycoplasma pneumoniae. It functions by stabilizing the DNA-drug-enzyme complex, thereby inhibiting ATP-dependent topoisomerase II (DNA gyrase) and topoisomerase IV, critical enzymes for bacterial DNA replication, transcription, repair, and recombination.

Solubility Information

Solubility	H ₂ O: 15 mg/mL (34.26 mM),Sonication is recommended. DMSO: 88 mg/mL (200.96 mM),Sonication is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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A DRUG SCREENING EXPERT

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2837 mL	11.4184 mL	22.8368 mL
5 mM	0.4567 mL	2.2837 mL	4.5674 mL
10 mM	0.2284 mL	1.1418 mL	2.2837 mL
50 mM	0.0457 mL	0.2284 mL	0.4567 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

Tuberculosis (Edinb), 2008, 88(2):127-131.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only· Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:36 Washington Street,Wellesley Hills,MA 02481