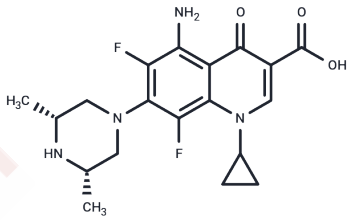
Data Sheet (Cat.No.T1095)

TargetMol

Sparfloxacin

Chemical Properties



CAS No. : 110871-86-8

Formula: C19H22F2N4O3

Molecular Weight: 392.4

Appearance: no data available

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

Biological Description

Description	Sparfloxacin (CI-978) is a fluoroquinolone antibiotic that inhibits bacterial DNA gyrase, thus preventing DNA replication and transcription.
Targets(IC50)	Antibacterial,Antibiotic,DNA gyrase,Topoisomerase
In vitro	Orally administered Sparfloxacin produces favorable therapeutic outcomes in mice with systemic infections caused by Staphylococcus aureus, Streptococcus pyogenes, Streptococcus pneumoniae, Escherichia coli, and Pseudomonas aeruginosa.
In vivo	Sparfloxacin targets DNA gyrase, inhibiting DNA synthesis. It exhibits potent, broad-spectrum antimicrobial activity, effective against Gram-positive bacteria such as Staphylococcus, Streptococcus, and Enterococcus species (MIC=0.1 to 0.78μg/ml), Gram-negative bacteria including Enterobacteriaceae and Pseudomonas species (MIC=0.0125 to 1.56μg/ml), glucose non-fermenters (MIC=0.025 to 0.78μg/ml), Legionella (MIC=0.0125 to 0.05μg/ml), and anaerobes (MIC=0.2 to 0.78μg/ml).

Solubility Information

Solubility	DMSO: 1 mg/mL (2.55 mM),Sonication is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble), H2O: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5484 mL	12.7421 mL	25.4842 mL
5 mM	0.5097 mL	2.5484 mL	5.0968 mL
10 mM	0.2548 mL	1.2742 mL	2.5484 mL
50 mM	0.051 mL	0.2548 mL	0.5097 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

Nakamura S, et al. Antimicrob Agents Chemother, 1989, 33(8), 1167-1173.
Pan XS, et al. Antimicrob Agents Chemother, 1997, 41(2), 471-474.

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