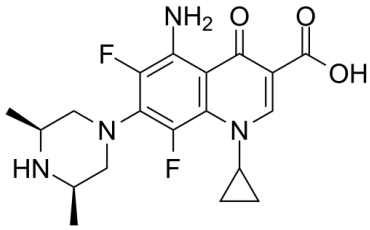
Data Sheet

Product Name:	Sparfloxacin
Cat. No.:	CS-2347
CAS No.:	110871-86-8
Molecular Formula:	C19H22F2N4O3
Molecular Weight:	392.40
Target:	Bacterial
Pathway:	Anti-infection
Solubility:	H2O : < 0.1 mg/mL (insoluble); 0.1 M NaOH : 50 mg/mL (127.42 mM; ultrasonic and adjust pH to 11 with NaOH); DMSO : 3.33 mg/mL (8.49 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

Sparfloxacin (CI-978) is a fluoroquinolone antibiotic, shows broad and potent antibacterial activity. IC50 & Target: Antibacterial[1]. **In Vitro:** Sparfloxacin (CI-978) shows broad and potent antibacterial activity. Its MICs for 90% of the strains tested are 0.1 to 0.78 μg/ml against gram-positive organisms, such as members of the genera Staphylococcus , Streptococcus and Enterococcus , and 0.0125 to 1.56 μg/ml against gram-negative organisms, such as members of the family Enterobacteriaceae and the genera Pseudomona . Its MICs are 0.025 to 0.78 μg/ml against glucose nonfermenters, 0.2 to 0.78 μg/ml against anaerobes, 0.0125 to 0.05 μg/ml against Legionella. Sparfloxacin (CI-978) showed good oral efficacy against systemic infections with Staphylococcus aureus , Streptococcus pyogenes , Streptococcus pneumoniae , Escherichia coli , and Pseudomonas aeruginosa in mice[1]. Sparfloxacin targets DNA gyrase and inhibits DNA synthesis[2].

References:

[1]. Nakamura, S., et al., In vitro and in vivo antibacterial activities of AT-4140, a new broad-spectrum quinolone. Antimicrob Agents Chemother, 1989. 33(8): p. 1167-73.

[2]. Pan, X.S. and L.M. Fisher, Targeting of DNA gyrase in Streptococcus pneumoniae by sparfloxacin: selective targeting of gyrase or topoisomerase IV by quinolones. Antimicrob Agents Chemother, 1997. 41(2): p. 471-4.

CAIndexNames:

3-Quinolinecarboxylic acid, 5-amino-1-cyclopropyl-7-[(3R,5S)-3,5-dimethyl-1-piperazinyl]-6,8-difluoro-1,4-dihydro-4-oxo-, rel-

SMILES:

O=C(C1=CN(C2CC2)C3=C(C(N)=C(F)C(N4C[C@H](C)N[C@H](C)C4)=C3F)C1=O)O

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