# Pazufloxacin mesylate

**Cat. No.:** HY-B0724A

**CAS No.:** 163680-77-1

**Molecular Formula:** $C_{17}H_{19}FN_2O_7S$

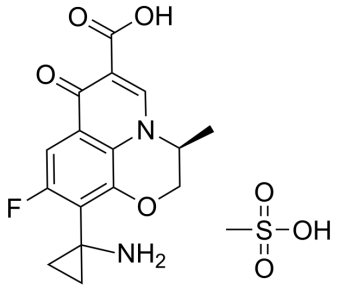
**Molecular Weight:** 414.41

**Target:** Bacterial; Antibiotic

**Pathway:** Anti-infection

**Storage:** 4°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 100 mg/mL (241.31 mM; Need ultrasonic)

$H_2O$ : ≥ 100 mg/mL (241.31 mM)

* "≥" means soluble, but saturation unknown.

**Preparing Stock Solutions**

| Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|
| 1 mM | 2.4131 mL | 12.0653 mL | 24.1307 mL |
| 5 mM | 0.4826 mL | 2.4131 mL | 4.8261 mL |
| 10 mM | 0.2413 mL | 1.2065 mL | 2.4131 mL |

Please refer to the solubility information to select the appropriate solvent.

**In Vivo**

1. Add each solvent one by one: PBS
   Solubility: 150 mg/mL (361.96 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (6.03 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.03 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.03 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

Pazufloxacin (T-3761) mesylate is a fluoroquinolone antibiotic.Target: AntibacterialPazufloxacin (T-3761), a new quinolone derivative, showed broad and potent antibacterial activity. T-3761 showed good efficacy in mice against systemic, pulmonary, and urinary tract infections with gram-positive and gram-negative bacteria, including quinolone-resistant Serratia marcescens and Pseudomonas aeruginosa. The in vivo activity of T-3761 was comparable to or greater than those of ofloxacin, ciprofloxacin, norfloxacin, and tosufloxacin against most infection models in mice. The activities of T-3761 were

| | |
|---|---|
| | lower than those of tosufloxacin against gram-positive bacterial systemic and pulmonary infections in mice but not against infections with methicillin-resistant Staphylococcus aureus [1]. T-3761 had a broad spectrum of activity and had potent activity against gram-positive and -negative bacteria. The MICs of T-3761 against 90% of the methicillin-susceptible Staphylococcus aureus, methicillin-susceptible and -resistant Staphylococcus epidermidis, and Clostridium spp. tested were 0.39 to 6.25 micrograms/ml. The MBCs of T-3761 were either equal to or twofold greater than the MICs. The 50% inhibitory concentrations of T-3761 for DNA gyrases isolated from E. coli and P. aeruginosa were 0.88 and 1.9 micrograms/ml, respectively [2]. |
| **$IC_{50}$ & Target** | Quinolone |

## REFERENCES


[1]. Fukuoka, Y., et al., In vitro and in vivo antibacterial activities of T-3761, a new quinolone derivative. Antimicrob Agents Chemother, 1993. 37(3): p. 384-92.

[2]. Muratani, T., M. Inoue, and S. Mitsuhashi, In vitro activity of T-3761, a new fluoroquinolone. Antimicrob Agents Chemother, 1992. 36(10): p. 2293-303.





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