Prulifloxacin

Cat. No.: HY-B0024

CAS No.: 123447-62-1

Molecular Formula: $C_{21}H_{20}FN_3O_6S$

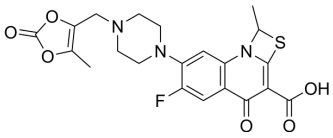
Molecular Weight: 461.46

Target: Bacterial; Antibiotic

Pathway: Anti-infection

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 12.5 mg/mL (27.09 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.1670 mL	10.8352 mL	21.6704 mL
	5 mM	0.4334 mL	2.1670 mL	4.3341 mL
	10 mM	0.2167 mL	1.0835 mL	2.1670 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 1.25 mg/mL (2.71 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 1.25 mg/mL (2.71 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Prulifloxacin (NM441) is an orally active fluoroquinolone antibiotic with a broad spectrum of activity against Gram-positive and -negative bacteria. Prulifloxacin is a proagent of a thiazeto-quinoline carboxylic acid derivative Ulifloxacin (NM394). Prulifloxacin has the potential for lower urinary tract infections and exacerbations of chronic bronchitis[1][2].

IC_{50} & Target

Quinolone

In Vivo

After oral administration of NM441 at a dose of 20 mg/kg to dogs, the peak concentration of NM394 in plasma was 2.39 micrograms/ml, whereas it was 0.63 micrograms/ml for NM394 administered alone. NM441 was as effective as ofloxacin and was twice as effective as ciprofloxacin against systemic infection with Staphylococcus aureus. Against infections with streptococci, NM441 was two to three times as effective as ofloxacin and five times as effective as ciprofloxacin[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Curr Microbiol. 2021 Dec 14;79(1):12.

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REFERENCES

[1]. M Ozaki, et al. In vivo evaluation of NM441, a new thiazeto-quinoline derivative. Antimicrob Agents Chemother. 1991 Dec;35(12):2496-9.

[2]. Guillem Prats, et al. Prulifloxacin: a new antibacterial fluoroquinolone. Expert Rev Anti Infect Ther. 2006 Feb;4(1):27-41.

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