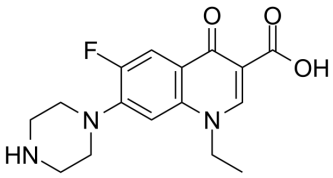
Norfloxacin

Cat. No.:	HY-B0132
CAS No.:	70458-96-7
Molecular Formula:	$C_{16}H_{18}FN_3O_3$
Molecular Weight:	319.33
Target:	Bacterial; Endogenous Metabolite; Antibiotic
Pathway:	Anti-infection; Metabolic Enzyme/Protease
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 : 5 mg/mL (15.66 mM; Need ultrasonic)
H_2O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	3.1316 mL	15.6578 mL	31.3156 mL
	5 mM	0.6263 mL	3.1316 mL	6.2631 mL
	10 mM	0.3132 mL	1.5658 mL	3.1316 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: ≥ 0.5 mg/mL (1.57 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 0.5 mg/mL (1.57 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Norfloxacin (MK-0366) is a broad-spectrum antibiotic that is active against both Gram-positive and Gram-negative bacteria, which functions by inhibiting DNA gyrase.

IC_{50} & Target

Quinolone

In Vitro

Norfloxacin (MK-0366) is a synthetic chemotherapeutic antibacterial agent occasionally used to treat common as well as complicated urinary tract infections. Norfloxacin (MK-0366) is a broad-spectrum antibiotic that is active against both Gram-positive and Gram-negative bacteria. It functions by inhibiting DNA gyrase, a type II topoisomerase, and topoisomerase IV, enzymes necessary to separate bacterial DNA, thereby inhibiting cell division.There are currently three approved uses in the

adult population (one of which is restricted) and the other ineffective due to bacterial resistance.
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Nat Commun. 2022 Mar 2;13(1):1116.
- Water Res. 2023 May 21, 120110.
- Theranostics. 2022 Jan 1;12(3):1187-1203.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Nelson JM, et al. Fluoroquinolone-resistant Campylobacter species and the withdrawal of fluoroquinolones from use in poultry: a public health success story. Clin Infect Dis. 2007 Apr 1;44(7):977-80. Epub 2007 Feb 14.

[2]. Pade?skaia EN. Norfloxacin: more than 20 years of clinical use, the results and place among fluoroquinolones in modern chemotherapy for infections. Antibiot Khimioter. 2003;48(9):28-36.

[3]. Rafalsky V, et al. Quinolones for uncomplicated acute cystitis in women. Cochrane Database Syst Rev. 2006 Jul 19;(3):CD003597.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA