Cadrofloxacin

Cat. No.: HY-116228

CAS No.: 153808-85-6

Molecular Formula: $C_{19}H_{20}F_3N_3O_4$

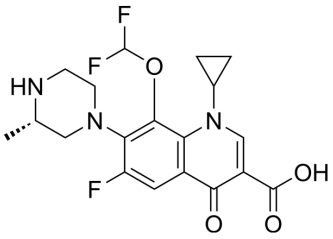
Molecular Weight: 411.38

Target: Bacterial

Pathway: Anti-infection

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 10 mg/mL (24.31 mM; ultrasonic and warming and adjust pH to 3 with HCl and heat to 80°C)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.4308 mL	12.1542 mL	24.3084 mL
	5 mM	0.4862 mL	2.4308 mL	4.8617 mL
	10 mM	0.2431 mL	1.2154 mL	2.4308 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 mg/mL (2.43 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 1 mg/mL (2.43 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 1 mg/mL (2.43 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Cadrofloxacin (Caderofloxacin; CS-940), a orally active fluoroquinolone, is effective against aerobic/anaerobic Gram-positive and Gram-negative bacteria. Cadrofloxacin can be used for the research of infectious diseases[1][2][3].

In Vitro

Cadrofloxacin against M.tuberculosis with a MIC_{50} of 0.25 μg/mL[1].
Cadrofloxacin against Acinetobacter spp. and Stenotrophomonas (Xanthomonas) maltophilia with MIC_{90}s of 0.03 and 2 μg/ml, respectively[2].
Cadrofloxacin against Haemophilus influenzae, Moraxella catarrhalis, and Neisseria spp. with MIC_{90}s less than or equal to

	0.06 μg/mL[2]. Cadrofloxacin against members of the family Enterobacteriaceae with MIC_{90}s of 0.015 to 16 μg/mL (median MIC_{90}, 0.06 μg/mL)[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Cadrofloxacin (9 mg/kg; i.g.; once or twice daily for 14 consecutive days) increases the activity of hepatic CYP2E1 in rats[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male Sprague-Dawley rats weighing 180-220 g[2]
Dosage:	9 mg/kg
Administration:	I.g. once or twice daily for 14 consecutive days
Result:	Enhanced the expression of hepatic CYP2E1 mRNA, inducing a 1.6-fold increase compared with that of control rats. The level of CYP2E1 protein in the hepatic microsomes was significantly higher than control group, 190% of that in control rats.

REFERENCES

[1]. Bryskier A, et al. Fluoroquinolones and tuberculosis. Expert Opin Investig Drugs. 2002 Feb;11(2):233-58.

[2]. Biedenbach DJ, et al. Antimicrobial activity of CS-940, a new trifluorinated quinolone. Antimicrob Agents Chemother. 1995 Oct;39(10):2325-30.

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