Cefpodoxime

Cat. No.: HY-A0251

CAS No.: 80210-62-4

Molecular Formula: $C_{15}H_{17}N_5O_6S_2$

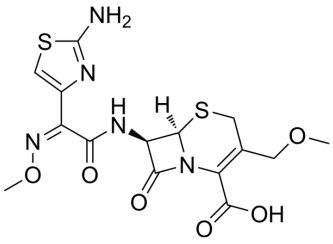
Molecular Weight: 427.46

Target: Antibiotic; Bacterial

Pathway: Anti-infection

Storage: -20°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 : 250 mg/mL (584.85 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.3394 mL	11.6970 mL	23.3940 mL
	5 mM	0.4679 mL	2.3394 mL	4.6788 mL
	10 mM	0.2339 mL	1.1697 mL	2.3394 mL

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

BIOLOGICAL ACTIVITY

Description

Cefpodoxime (Cefpodoxime acid) is a potent antibiotic active against gram-positive and gram-negative bacteria. Cefpodoxime inhibits the majority of cells in microbial populations. Cefpodoxime can be used for acute otitis media, sinusitis and tosillopharyngitis research[1][2].

IC_{50} & Target

β-lactam

In Vitro

Cefpodoxime (Cefpodoxime acid) inhibits gram-negative anaerobic rods (Bacteroidaceae) with MIC values of 0.125-4 mg/L. Cefpodoxime inhibits Veillonella parvula with MIC values of 0.25-8 mg/L. Cefpodoxime inhibits Peptostreptococcus micros, Peptostreptococcus asaccharolyticus and Ruminococcus bromii with MIC values of <2 mg/L[1].

Cefpodoxime (Cefpodoxime acid) inhibits bacterial populations of S. pneumoniae and S. pyogenes. cfu[2].

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

In Vivo

Cephalosporins (2.5-50 mg/kg; p.o.; every 8 hours; for 48 hours) have good curative effect in mice[3].

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Animal Model:	Female Swiss CD1 mice[3]
Dosage:	2.5, 5, 10, 25, 40 and 50 mg/kg
Administration:	Oral administration; every 8 hours; for 48 hours
Result:	Efficacy was obtained with values of >350.

REFERENCES

[1]. Werner H, et, al. Comparative in vitro activity of cefpodoxime against anaerobes other than Bacteroides fragilis. Infection. 1991 Sep-Oct;19(5):377-9.

[2]. Valentini S, et, al. In-vitro evaluation of cefpodoxime. J Antimicrob Chemother. 1994 Mar;33(3):495-508.

[3]. Pérez-Trallero E, et, al. Prediction of in-vivo efficacy by in-vitro early bactericidal activity with oral beta-lactams, in a dose-ranging immunocompetent mouse sepsis model, using strains of Streptococcus pneumoniae with decreasing susceptibilities to penicillin. J Chemother. 2001 Apr;13(2):118-25.

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