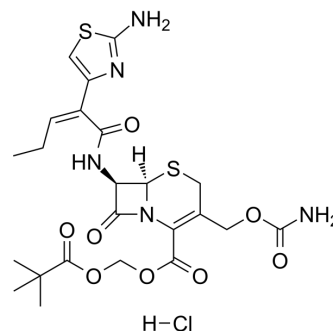


Cefcapene pivoxil hydrochloride

Cat. No.:	HY-135221
CAS No.:	147816-23-7
Molecular Formula:	C ₂₃ H ₃₀ ClN ₅ O ₈ S ₂
Molecular Weight:	604.1
Target:	Bacterial; Antibiotic
Pathway:	Anti-infection
Storage:	4°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 125 mg/mL (206.92 mM; Need ultrasonic)					
	H ₂ O : < 0.1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble)					
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
			1 mM	1.6554 mL	8.2768 mL	16.5536 mL
			5 mM	0.3311 mL	1.6554 mL	3.3107 mL
10 mM			0.1655 mL	0.8277 mL	1.6554 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: ≥ 2.33 mg/mL (3.86 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.33 mg/mL (3.86 mM); Clear solution					
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.33 mg/mL (3.86 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	Cefcapene pivoxil hydrochloride, the pivalate ester prodrug form of Cefcapene, is an orally active third-generation cephalosporin with a wide spectrum of anti-bacterial activity. Cefcapene pivoxil hydrochloride has the potential for the palmoplantar pustulosis (PPP) research ^{[1][2]} .
IC ₅₀ & Target	β-lactam
In Vivo	Cefcapene pivoxil hydrochloride (oral administration; 100mg/kg; 4 days) is effective against invasive BLNAR strains in mice lung, stimulates peak antibiotic concentrations of 1 to 2 μg/ml in the blood of mice from 30 to 120 min after intragastric

administration^[3].

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

Animal Model:	Four-week-old female C57BL/6J mice with bacterial suspension in BSG (1×10^9 CFU) ^[3]
Dosage:	100 mg/kg
Administration:	Oral administration; 100mg/kg; 4 days
Result:	Was against H. influenzae colonization in mouse lung.

REFERENCES

[1]. Murakami M, et al. Cefcapene Pivoxil Hydrochloride Is a Potentially New Treatment for Palmoplantar Pustulosis with Pustulotic Arthro-Osteitis. *Dermatology*. 2015;231(4):304-11.

[2]. Koh Okamoto, et al. Poor penetration of cefcapene into aqueous humor after oral administration of cefcapene pivoxil to patients undergoing cataract surgery. *J Infect Chemother*. 2020 Feb;26(2):312-315.

[3]. Sekiya Y, et al. Comparative efficacies of different antibiotic treatments to eradicate nontypeable Haemophilus influenzae infection. *BMC Infect Dis*. 2008 Feb 7;8:15.

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

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