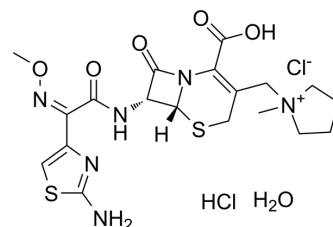


Cefepime Dihydrochloride Monohydrate

Cat. No.:	HY-B0616
CAS No.:	123171-59-5
Molecular Formula:	C ₁₉ H ₂₈ Cl ₂ N ₆ O ₆ S ₂
Molecular Weight:	571.5
Target:	Bacterial; Antibiotic
Pathway:	Anti-infection
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

H₂O : 10 mg/mL (17.50 mM; Need ultrasonic)
DMSO : 6 mg/mL (10.50 mM; Need ultrasonic)

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	1.7498 mL	8.7489 mL	17.4978 mL
	5 mM	0.3500 mL	1.7498 mL	3.4996 mL
	10 mM	0.1750 mL	0.8749 mL	1.7498 mL

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

In Vivo

- Add each solvent one by one: PBS
Solubility: 7.14 mg/mL (12.49 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.08 mg/mL (3.64 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: 2.08 mg/mL (3.64 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.08 mg/mL (3.64 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Cefepime Dihydrochloride Monohydrate is a broad-spectrum cephalosporin with enhanced coverage against Gram-positive and Gram-negative bacteria^[1].

IC₅₀ & Target

β-lactam

In Vitro	<p>Cefepime is an extended-spectrum parenteral cephalosporin antibiotic active in vitro against a broad spectrum of gram-positive and gram-negative aerobic bacteria. Cefepime has a decreased propensity to induce beta-lactamases compared with other beta-lactam antibiotics^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>
In Vivo	<p>Cefepime has a pharmacokinetic disposition similar to that of other renally eliminated cephalosporins, with a half-life of approximately 2 hours. Cefepime has demonstrated clinical efficacy against a variety of infections, including urinary tract infections, pneumonia, and skin and skin structure infections. Cefepime is generally well tolerated^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

CUSTOMER VALIDATION

- Emerg Microbes Infect. 2024 Dec;13(1):2321981.
- Pharmaceutics. 2023 Nov 30, 15(12), 2705.
- Vet Microbiol. 2024 May, 292, 110046.
- J Antibiot (Tokyo). 2023 Feb 1.
- Animal Diseases. 02 November 2021.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Neu, H.C., Safety of cefepime: a new extended-spectrum parenteral cephalosporin. Am J Med, 1996. 100(6A): p. 68S-75S.

[2]. Wynd, M.A. and J.A. Paladino, Cefepime: a fourth-generation parenteral cephalosporin. Ann Pharmacother, 1996. 30(12): p. 1414-24.

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

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