Product Data Sheet

Cefepime chloride

Cat. No.: HY-B0692A CAS No.: 107648-79-3 Molecular Formula: $C_{19}H_{25}CIN_6O_5S_2$

Molecular Weight: 517.02

Target: Antibiotic; Bacterial; Penicillin-binding protein (PBP)

Pathway: Anti-infection

Storage: Please store the product under the recommended conditions in the Certificate of

BIOLOGICAL ACTIVITY

Description	Cefepime (BMY-28142) chloride is a broad-spectrum and cross the blood-brain barrier cephalosporin. Cefepime chloride shows antibacterial effects against both Gram-positive and Gram-negative aerobic bacteria. Cefepime chloride induces neurotoxicity ^{[1][2][3][4]} .	
IC ₅₀ & Target	β-lactam	
In Vitro	Cefepime chloride exerts its antibacterial effects by binding to penicillin-binding proteins ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	Cefepime chloride (80 mg/kg; i.p.) significantly increases the half-life and mice surviveed ^[4] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Male CD-1 mice ^[4]
	Dosage:	80 mg/kg
	Administration:	l.p.
	Result:	Significantly prolonged the half-life of cefepime and all mice survived at 18-22 mg/kg cisplatin, and when pretreatment with 26 mg/kg cisplatin significantly decreased survival with the half-life of cefepime was not significantly longer than of 18 mg/kg cisplatin.

CUSTOMER VALIDATION

- Pharmaceutics. 2023 Nov 30, 15(12), 2705.
- J Antibiot (Tokyo). 2023 Feb 1.

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REFERENCES

- [1]. Yahav D, et al. Efficacy and safety of cefepime: a systematic review and meta-analysis. Lancet Infect Dis. 2007 May;7(5):338-48.
- [2]. Barradell LB, Bryson HM. Cefepime. A review of its antibacterial activity, pharmacokinetic properties and therapeutic use. Drugs. 1994;47(3):471-505.
- [3]. Payne LE, et al. Cefepime-induced neurotoxicity: a systematic review. Crit Care. 2017 Nov 14;21(1):276. doi: 10.1186/s13054-017-1856-1.
- [4]. Máthé A, et al. The effect of different doses of cisplatin on the pharmacokinetic parameters of cefepime in mice. Lab Anim. 2006 Jul;40(3):296-300.

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

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