Cefmetazole

Cat. No.: HY-B1595

CAS No.: 56796-20-4

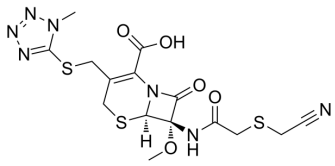
Molecular Formula: $C_{15}H_{17}N_7O_5S_3$

Molecular Weight: 471.53

Target: Antibiotic; Bacterial

Pathway: Anti-infection

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



BIOLOGICAL ACTIVITY

Description	Cefmetazole (CS 1170) is a semisynthetic cephamycin antibiotic with broad-spectrum antibacterial activity, covering gram-positive, gram-negative and anaerobic bacteria. Cefmetazole binds to penicillin binding proteins (PBPs), resulting in interfering bacterial cell wall biosynthesis. Cefmetazole is used for the research of gynecologic, intraabdominal, urinary tract, respiratory tract and skin and soft tissue infections[1][2][3].
IC_{50} & Target	β-lactam
In Vitro	Cefmetazole (CS 1170) has antibiotic affinity to S. aureus with a MIC value of 1.0 mg/L. Cefmetazole has affinity for PBP1, PBP2 and PBP3 with IC_{50} values of ≤0.3, 0.109 and 0.494 mg/L[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Cefmetazole (CS 1170) (100 mg/kg; i.h.; twice a day, for 7 days; male ICR mice) alters gut bacterial flora[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male ICR mice[3]
Dosage:	100 mg/kg
Administration:	Subcutaneous injection; twice a day, for 7 days
Result:	Reduced Peyer's patch (PP) lymphocyte cell numbers while decreased bacterial numbers in the small intestine.

REFERENCES

[1]. Truesdell SE, et, al. Interaction of cephalosporins with penicillin-binding proteins of methicillin-resistant Staphylococcus aureus. J Antimicrob Chemother. 1989 Apr;23 Suppl D:13-9.

[2]. Schentag JJ. Cefmetazole sodium: pharmacology, pharmacokinetics, and clinical trials. Pharmacotherapy. 1991;11(1):2-19.

[3]. Yaguchi Y, et, al. Influences of long-term antibiotic administration on Peyer's patch lymphocytes and mucosal immunoglobulin A levels in a mouse model. JPEN J Parenter Enteral Nutr. 2006 Sep-Oct;30(5):395-8; discussion 399.

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

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