Product Data Sheet

Cefmenoxime hydrochloride

Cat. No.: HY-B0875 CAS No.: 75738-58-8

Molecular Formula: $C_{16}H_{17\cdot5}Cl_{0\cdot5}N_{9}O_{5}S_{3}$

Molecular Weight: 529.79

Target: Bacterial; Antibiotic Pathway: Anti-infection

Storage: 4°C, sealed storage, away from moisture

* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

0.5HCI

SOLVENT & SOLUBILITY

In Vitro

DMSO: 65 mg/mL (122.69 mM; Need ultrasonic and warming) $\rm H_2O$: < 0.1 mg/mL (ultrasonic; warming; heat to 60°C) (insoluble)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	1.8875 mL	9.4377 mL	18.8754 mL
	5 mM	0.3775 mL	1.8875 mL	3.7751 mL
	10 mM	0.1888 mL	0.9438 mL	1.8875 mL

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

BIOLOGICAL ACTIVITY

Description	Cefmenoxime (SCE-1365) hydrochloride is a new semisynthetic cephalosporin antibiotic. Cefmenoxime has antibacterial activity against a wide variety of gram-positive and gram-negative bacteria $^{[1][2]}$.
IC ₅₀ & Target	β-lactam
In Vitro	Cefmenoxime (SCE-1365) hydrochloride inhibits at least 90% of strains tested (MIC ₉₀) ranged from 0.06 to 8 μ g/mL for the Enterobacteriaceae ^[1] . Cefmenoxime (SCE-1365) hydrochloride inhibits MIC ₉₀ values for gram-positive cocci are 0.015 and \leq 0.008 μ g/mL for Streptococcus pneumoniae and Streptococcus pyogenes, respectively, and 2 μ g/mL for S. aureus ^[1] . Cefmenoxime (SCE-1365) hydrochloride against Haemophilus influenzae, Neisseria gonorrhoeae, and Neisseria meningitidis with MIC ₉₀ values ranging from \leq 0.008 to 0.25 μ g/mL ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Cefmenoxime (SCE-1365) hydrochloride (40 mg/kg; i.h.; daily, for 7 d; male Jcl:ICR mice) improves the survival rate of mice infected with lung bacteria ^[2] .

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Animal Model:	Male Jcl:ICR mice ^[2]
Dosage:	40 mg/kg
Administration:	Subcutaneous injection; daily, for 7 days
Result:	Inhibited mortality rate of animals was 60% at a dose of 40 mg/kg.

REFERENCES

[1]. Stamm JM, et, al. Antimicrobial activity of cefmenoxime (SCE-1365). Antimicrob Agents Chemother. 1981 Mar;19(3):454-60.

[2]. Tatara O, et, al. Synergistic effects of romurtide and cefmenoxime against experimental Klebsiella pneumonia in mice. Antimicrob Agents Chemother. 1992 Jan;36(1):167-71.

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

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