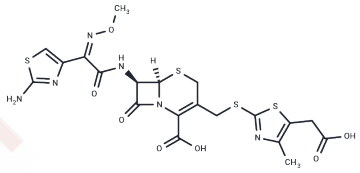
Data Sheet (Cat.No.T14922)

TargetMol

Cefodizime

Chemical Properties



CAS No. : 69739-16-8

Formula: C20H20N6O7S4

Molecular Weight: 584.67

Storage: Keep away from direct sunlight
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Cefodizime is a new cephalosporin antibiotic with a wide range of biological activities. Cefodizime is non-toxic to the kidneys and is well tolerated with immunomodulatory activity.Cefodizime has antimicrobial activity and is used in the study of serious infections of the respiratory and urinary systems.
Targets(IC50)	Antibacterial,Antibiotic
In vitro	Cefodizime is a bactericidal antibiotic having a high affinity for penicillin-binding proteins lA/B, 2, and 3 of E. coli. Cefodizime inhibits other Gram-negative bacteria including Haemophilus irifluenzae, Neisseria gonorrhoeae, Moraxella catarrhalis, and Neisseria meningitidis. Cefodizime has marginal but variable inhibitory activity against Citrobacter species including Serratia marcescens and Citrobacter freundii. The in vitro concentrations of Cefodizime resulting in bactericidal activity against susceptible strains of Gram-positive and Gram-negative bacteria are generally similar to the minimum inhibitory concentrations [1].
In vivo	Cefodizime exhibits comparable efficacy to Cefotaxime and Ceftazidime, and surpasses Cefoperazone, Latamoxef, Cefuroxime, and Cefazolin in combating K. pneumoniae respiratory tract infections in mice, following a single subcutaneous dose of 50 mg/kg, maintaining significant bactericidal activity up to 48 hours post-administration. This is unlike the aforementioned cephalosporins, as Cefodizime ensures bacterial eradication from the lungs within 48 hours in half of the treated mice, even when no longer present in the serum [1].

Solubility Information

Solubility	DMSO: 40 mg/mL (68.41 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (3.42 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7104 mL	8.5518 mL	17.1037 mL
5 mM	0.3421 mL	1.7104 mL	3.4207 mL
10 mM	0.171 mL	0.8552 mL	1.7104 mL
50 mM	0.0342 mL	0.171 mL	0.3421 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Barradell LB, et al. Cefodizime. A review of its antibacterial activity, pharmacokinetic properties and therapeutic use. Drugs. 1992 Nov;44(5):800-34.

Hu T, et al. Probing the interaction of cefodizime with human serum albumin using multi-spectroscopic and molecular docking techniques. J Pharm Biomed Anal. 2015 Mar 25;107:325-32.