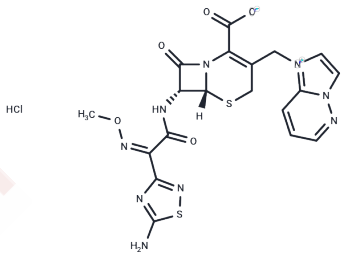
Data Sheet (Cat.No.T4984)

TargetMol

Cefozopran hydrochloride

Chemical Properties



CAS No. : 113981-44-5

Formula: C19H18ClN9O5S2

Molecular Weight: 551.99

Storage: Store at low temperature
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	Cefozopran hydrochloride (SCE-2787 hydrochloride) is a fourth-generation cephalosporin. is a cell wall biosynthesis inhibitor with a broad spectrum of activity against Gram-positive and Gram-negative bacteria.
Targets(IC50)	Antibacterial,Antibiotic,Antifungal
In vitro	Cefozopran hydrochloride (SCE-2787 hydrochloride), a fourth-generation cephalosporin, exhibits substantial activity against a range of bacteria. Cefozopran hydrochloride is effective against gram-positive organisms, including methicillin-susceptible staphylococci, enterococci, and viridans group streptococci. Additionally, Cefozopran hydrochloride demonstrates efficacy against gram-negative organisms such as Hemophilus influenza. Notably, Cefozopran hydrochloride displays comparatively good activity against enterococci and P. aeruginosa, which are typically resistant to other cephalosporins[2].
In vivo	In four-week-old ICR male mice, Cefozopran hydrochloride, administered subcutaneously at doses ranging from 5 to 80 mg/kg twice a day for 5 days, proves effective against acute respiratory tract infections caused by Kiebsiella pneumonia DT-S. In a model of chronic respiratory tract infection induced by K. pneumoniae 27, Cefozopran hydrochloride, at doses between 20 and 80 mg/kg administered subcutaneously twice a day for 7 days in five-week-old CBA/J female mice, exhibits effectiveness comparable to Ceftazidime[2].

Solubility Information

Solubility	H2O: 30 mg/mL (54.35 mM),Sonication is recommended. DMSO: 30 mg/mL (54.35 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 (3.62 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	1.8116 mL	9.0581 mL	18.1163 mL
5 mM	0.3623 mL	1.8116 mL	3.6233 mL
10 mM	0.1812 mL	0.9058 mL	1.8116 mL
50 mM	0.0362 mL	0.1812 mL	0.3623 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

Iizawa Y, et al. Therapeutic effect of cefozopran (SCE-2787), a new parenteral cephalosporin, against experimental infections in mice. Antimicrob Agents Chemother. 1993;37(1):100-105.
Sato T, et al. A prospective, randomized study comparing cefozopran with piperacillin-tazobactam plus ceftazidime as empirical therapy for febrile neutropenia in children with hematological disorders. Pediatr Blood Cancer. 2008;51(6):774-777.