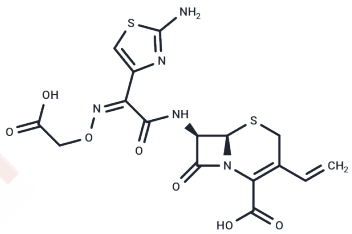
Data Sheet (Cat.No.T0932)

TargetMol

Cefixime

Chemical Properties



CAS No. : 79350-37-1

Formula: C16H15N5O7S2

Molecular Weight: 453.45

Storage: 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	Cefixime (FR-17027) is a broad-spectrum, third-generation cephalosporin antibiotic derived semisynthetically from the marine fungus Cephalosporium acremonium with antibacterial activity. As does penicillin, the beta-lactam antibiotic cefixime inhibits bacterial cell wall synthesis by disrupting peptidoglycan synthesis, resulting in a reduction in bacterial cell wall stability and bacterial cell lysis. Stable in the presence of a variety of beta-lactamases, this agent is more active against gram-negative bacteria and less active against gram-positive bacteria compared to second-generation cephalosporins.
Targets(IC50)	Antibacterial,Antibiotic
Cell Research	The morphological changes of serovar Typhimurium FP39 in THP-1 cells are studied by light microscopy and transmission electron microscopy. Infected THP-1 cells are treated for 4 h with 0.5 μg of cefixime/ml. (Only for Reference)

Solubility Information

Solubility	Ethanol: hardly dissolve, H2O: Insoluble, DMSO: 166.7 mg/mL (367.63 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: < 10 mg/mL (22.05 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10 mg/mL (22.05 mM),Solution. *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	2.2053 mL	11.0266 mL	22.0531 mL
5 mM	0.4411 mL	2.2053 mL	4.4106 mL
10 mM	0.2205 mL	1.1027 mL	2.2053 mL
50 mM	0.0441 mL	0.2205 mL	0.4411 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

Takahata S, et al. Antimicrob Agents ChemOthers. 2006 Nov;50(11):3638-45.