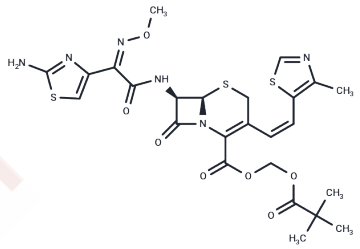
Data Sheet (Cat.No.T1405)

TargetMol

Cefditoren pivoxil

Chemical Properties



CAS No. : 117467-28-4

Formula: C25H28N6O7S3

Molecular Weight: 620.72

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Cefditoren pivoxil (ME 1207) is a semi-synthetic, broad-spectrum, beta-lactamase resistant, third-generation cephalosporin antibiotic with bactericidal activity.
Targets(IC50)	Antibacterial,Antibiotic
In vitro	Cefditoren has MIC50/MIC90 results for Moraxella catarrhalis and Haemophilus influenzae of 0.12/0.5 and < or = 0.008/0.015 mg/mL, respectively. [1] Cefditoren (MIC (90), 0.5 mg/mL) is 4- to 128-fold more active than comparison beta-lactams against the pneumoococci and was the most potent beta-lactam (including penicillin) versus beta-haemolytic streptococci. Cefditoren (MIC(90) in mg/mL/% susceptible) activity against all tested H. influenzae (0.03/100) and M. catarrhalis (0.06-0.5/100) is comparable to Cefixime and significantly greater than cefaclor. Cefditoren pharmacokinetics demonstrate a T(1/2) of 1.5-2 hours and C(max) values of 2.8 and 4.6 mg/mL, respectively with 200 or 400 mg doses of Cefditoren pivoxil. [2] Cefditoren possesses a broad-spectrum of cidal antibacterial activity against both Gram-positive and Gram-negative species with stability to many beta-lactamases of clinical importance. [3] Cefditoren is also effective against methicillin-susceptible strains of Staphylococcus aureus. Cefditoren has compared favorably against other orally administered antibiotics used against the most commonly isolated respiratory tract pathogens. [4] Cefditoren up-regulates the expression levels of Mrp2, Bcrp and Oat2, and down-regulate P-gp and Oct1 mRNA expression. [5]

Solubility Information

Solubility	Ethanol: < 1 mg/mL (insoluble or slightly soluble), DMSO: 45 mg/mL (72.5 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.611 mL	8.0552 mL	16.1103 mL
5 mM	0.3222 mL	1.611 mL	3.2221 mL
10 mM	0.1611 mL	0.8055 mL	1.611 mL
50 mM	0.0322 mL	0.1611 mL	0.3222 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.

Reference

Jones RN, et al. Diagn Microbiol Infect Dis, 1998, 31(4), 573-578.
Johnson DM, et al. Diagn Microbiol Infect Dis, 2000, 37(2), 99-105.
Felmingham D, et al. Drugs Exp Clin Res, 1994, 20(4), 127-147.
Balbisi EA, et al. Pharmacotherapy, 2002, 22(10), 1278-1293.
Meng Q, et al. Drug Metab Pharmacokinet, 2010, 25(4), 320-327.