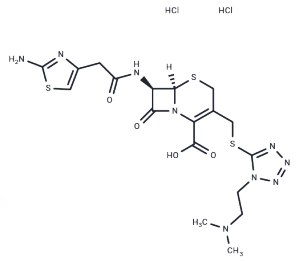
Data Sheet (Cat.No.T1616)

TargetMol

Cefotiam hydrochloride

Chemical Properties



CAS No. : 66309-69-1

Formula: C18H23N9O4S3.2HCl

Molecular Weight: 598.60

Storage: Store under nitrogen
Powder: -20°C for 3 years
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Cefotiam hydrochloride (SCE-963 hydrochloride) is the hydrochloride salt form of cefotiam, a third-generation, semi-synthetic, beta-lactam cephalosporin antibiotic with antibacterial activity. Cefotiam binds to penicillin-binding proteins (PBPs), transpeptidases that are responsible for crosslinking of peptidoglycan. By preventing crosslinking of peptidoglycan, cell wall integrity is lost and cell wall synthesis is halted.
Targets(IC50)	Antibacterial,Antibiotic

Solubility Information

Solubility	DMSO: 50 mg/mL (83.53 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 (3.34 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	1.6706 mL	8.3528 mL	16.7056 mL
5 mM	0.3341 mL	1.6706 mL	3.3411 mL
10 mM	0.1671 mL	0.8353 mL	1.6706 mL
50 mM	0.0334 mL	0.1671 mL	0.3341 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

Matsuda K, et al. Antimicrob Agents ChemOthers. 1995 Dec;39(12):2631-4.