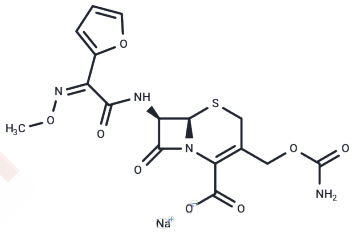
Data Sheet (Cat.No.T1224)

TargetMol

Cefuroxime sodium

Chemical Properties



CAS No. : 56238-63-2

Formula: C16H15N4NaO8S

Molecular Weight: 446.37

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	Cefuroxime Sodium is the sodium salt form of cefuroxime and a semi-synthetic, broad-spectrum, beta-lactamase resistant, second-generation cephalosporin antibiotic with bactericidal activity. Cefuroxime sodium (Cefuroxime sodium salt) inhibits bacterial cell wall synthesis by inactivating penicillin binding proteins (PBPs) thereby interfering with the final transpeptidation step required for cross-linking of peptidoglycan units which are a component of the cell wall. Lack of cross-linking results in a reduction of cell wall stability and leads to cell lysis.
Targets(IC50)	Antibacterial,Antibiotic
In vivo	The intravenous LD50 of cefuroxime sodium for mice is 10.4 g/kg. The maximum dosage administered in other acute toxicity tests is well tolerated by mice (10 g/kg, subcutaneous), by rats (4 g/kg, intravenous, 5 g/kg, subcutaneous) and by cats, dogs and monkeys (2 g/kg, intramuscularly). However, when cefuroxime sodium is administered subcutaneously (s.c.) or intramuscularly (i.m.) for 3 months to rats (100, 300 or 900 mg/kg/day) followed by a recovery period, and also for 6 months to rats and dogs (50, 150 or 450 mg/kg/day) and for 1 month to monkeys (150 or 450 mg/kg/day), there are no serious toxic effects in all tests. In rats large doses cause some increase in urine volume and electrolyte excretion, and slightly aggravates an age related nephropathy. Administration to rats intravenously (i.v.) for 1 month of up to 400 mg/kg/day has no toxic effects. In reproduction studies on mice and rabbits there are no adverse effects on fertility, organogenesis or the rearing of young[1].

Solubility Information

Solubility	Ethanol: < 1 mg/mL (insoluble or slightly soluble), DMSO: 250 mg/mL (560.07 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 (4.48 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	2.2403 mL	11.2015 mL	22.4029 mL
5 mM	0.4481 mL	2.2403 mL	4.4806 mL
10 mM	0.224 mL	1.1201 mL	2.2403 mL
50 mM	0.0448 mL	0.224 mL	0.4481 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

Capel-Edwards K, et al. Toxicology. 1979, 13(1):1-5.