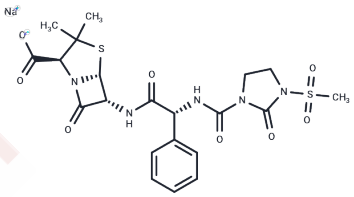
Data Sheet (Cat.No.T6582)

TargetMol

Mezlocillin Sodium

Chemical Properties



CAS No. : 42057-22-7

Formula: C21H25N5O8S2·Na

Molecular Weight: 561.56

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	Mezlocillin Sodium (Baycipen) is a penicillin beta-lactam antibiotic used in the treatment of bacterial infections caused by susceptible, usually gram-positive, organisms.
Targets(IC50)	Antibacterial,Antibiotic
In vitro	Mezlocillin sodium has in vitro activity against gram-positive and gram-negative aerobic and anaerobic bacteria. The bactericidal activity of mezlocillin results from the inhibition of cell wall synthesis and is mediated through mezlocillin binding to penicillin binding proteins (PBPs). Mezlocillin is stable against hydrolysis by a variety of beta-lactamases, including penicillinases, and cephalosporinases and extended spectrum beta-lactamases. Mezlocillin inhibits the third and last stage of bacterial cell wall synthesis by binding to specific penicillin-binding proteins (PBPs) located inside the bacterial cell wall. Cell lysis is then mediated by bacterial cell wall autolytic enzymes such as autolysins; it is possible that mezlocillin interferes with an autolysin inhibitor. Unlike many other penicillins, mezlocillin is either extensively metabolized or is subject to biliary excretion, as only about 50% of the dose is accounted for in normal urine. [1]

Solubility Information

Solubility	H2O: 92 mg/mL (163.83 mM),Sonication is recommended. DMSO: 93 mg/mL (165.61 mM),Sonication is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (5.88 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	1.7808 mL	8.9038 mL	17.8075 mL
5 mM	0.3562 mL	1.7808 mL	3.5615 mL
10 mM	0.1781 mL	0.8904 mL	1.7808 mL
50 mM	0.0356 mL	0.1781 mL	0.3562 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

McCloskey RV, et al. Pharmacotherapy, 1982, 2(6), 300-312.