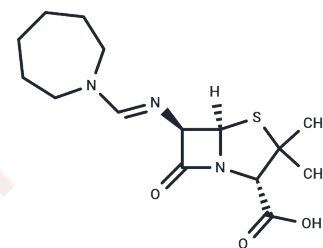


Mecillinam

Chemical Properties

CAS No. :	32887-01-7
Formula:	C ₁₅ H ₂₃ N ₃ O ₃ S
Molecular Weight:	325.43
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Mecillinam (Hexacillin), an extended-spectrum penicillin antibiotic, is considered to be active against Gram-negative bacteria by binding specifically to penicillin-binding protein 2 (PBP2). It is used primarily to treat urinary tract infections and has also been used in the treatment of paratyphoid fever and typhoid.
Targets(IC50)	Antibacterial, Antibiotic

Solubility Information

Solubility	H ₂ O: Insoluble, DMSO: 250 mg/mL (768.21 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 (30.73 mM), Solution. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (15.36 mM), Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0729 mL	15.3643 mL	30.7286 mL
5 mM	0.6146 mL	3.0729 mL	6.1457 mL
10 mM	0.3073 mL	1.5364 mL	3.0729 mL
50 mM	0.0615 mL	0.3073 mL	0.6146 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

- Thulin E, Sundqvist M, Andersson DI. Amdinocillin (Mecillinam) resistance mutations in clinical isolates and laboratory-selected mutants of *Escherichia coli*. *Antimicrob Agents Chemother*. 2015 Mar;59(3):1718-27.
- Kerrn MB, Frimodt-Møller N, Espersen F. Effects of sulfamethizole and amdinocillin against *Escherichia coli* strains (with various susceptibilities) in an ascending urinary tract infection mouse model. *Antimicrob Agents Chemother*. 2003 Mar;47(3):1002-9. PubMed PMID: 12604534; PubMed Central PMCID: PMC149286.
- Olson ME, Nickel JC, Khoury AE, Morck DW, Cleeland R, Costerton JW. Amdinocillin treatment of catheter-associated bacteriuria in rabbits. *J Infect Dis*. 1989 Jun;159(6):1065-72. PubMed PMID: 2656876.
- Yourassowsky E, van der Linden MP, Lismont MJ, Crokaert F, Glupczynski Y. Protective effect of amdinocillin against emergence of resistance to ceftazidime in *Enterobacter cloacae*. *Antimicrob Agents Chemother*. 1988 Nov;32(11):1632-5. PubMed PMID: 3075433; PubMed Central PMCID: PMC175942.

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