

piperacillin

Chemical Properties

CAS No. : 61477-96-1

Formula: C₂₃H₂₇N₅O₇S

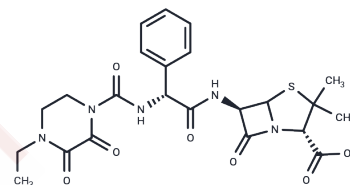
Molecular Weight: 517.55

Keep away from direct sunlight, Keep away from moisture

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	Piperacillin (Pipercillin) is a semisynthetic penicillin with wide spectrum of antimicrobial activity (particularly pseudomonas strains)
Targets (IC ₅₀)	Antibacterial, Antibiotic

Solubility Information

Solubility	DMSO: 255 mg/mL (492.71 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 (3.86 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	1.9322 mL	9.6609 mL	19.3218 mL
5 mM	0.3864 mL	1.9322 mL	3.8644 mL
10 mM	0.1932 mL	0.9661 mL	1.9322 mL
50 mM	0.0386 mL	0.1932 mL	0.3864 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

Messori A , Tulli G , Caccese E , et al. Piperacillin-Tazobactam: Extended Infusion Versus Continuous Infusion[J]. Critical care medicine, 2018, 46(7):e725.

Yan M, Zheng B, Li Y, et al. Antimicrobial Susceptibility Trends Among Gram-Negative Bacilli Causing Bloodstream Infections: Results from the China Antimicrobial Resistance Surveillance Trial (CARST) Program, 2011-2020. Infection and Drug Resistance. 2022, 15: 2325

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