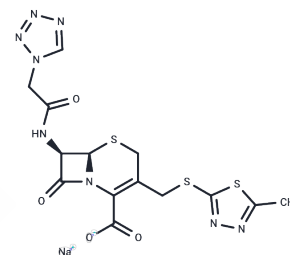


## Cefazolin sodium

## Chemical Properties

CAS No. :	27164-46-1
Formula:	C <sub>14</sub> H <sub>13</sub> N <sub>8</sub> NaO <sub>4</sub> S <sub>3</sub>
Molecular Weight:	476.48
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	Cefazolin sodium (cephazolin sodium) salt binds to and inactivates penicillin-binding proteins (PBP) located on the inner membrane of the bacterial cell wall. Cefazolin sodium salt is the sodium salt of cefazolin, a beta-lactam antibiotic and first-generation cephalosporin with bactericidal activity. Inactivation of PBPs interferes with the cross-linkage of peptidoglycan chains necessary for bacterial cell wall strength and rigidity, which results in the weakening of the bacterial cell wall and cell lysis.
Targets(IC50)	Antibacterial, Antibiotic

## Solubility Information

Solubility	DMSO: 250 mg/mL (524.68 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: 2 mg/mL (4.2 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

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	2.0987 mL	10.4936 mL	20.9872 mL
5 mM	0.4197 mL	2.0987 mL	4.1974 mL
10 mM	0.2099 mL	1.0494 mL	2.0987 mL
50 mM	0.042 mL	0.2099 mL	0.4197 mL

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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

Truesdell SE, et al. J Antimicrob ChemOthers. 1989 Apr;23 Suppl D:13-9.

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