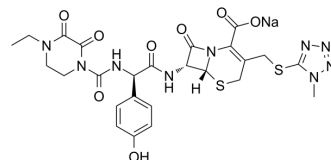


## Cefoperazone sodium salt

Cat. No.:	HY-B0210A
CAS No.:	62893-20-3
Molecular Formula:	C <sub>25</sub> H <sub>26</sub> N <sub>9</sub> NaO <sub>8</sub> S <sub>2</sub>
Molecular Weight:	667.65
Target:	Bacterial; Antibiotic
Pathway:	Anti-infection
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 125 mg/mL (187.22 mM; Need ultrasonic)  
H<sub>2</sub>O : 60 mg/mL (89.87 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.4978 mL	7.4890 mL	14.9779 mL
	5 mM	0.2996 mL	1.4978 mL	2.9956 mL
	10 mM	0.1498 mL	0.7489 mL	1.4978 mL

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: PBS  
Solubility: 100 mg/mL (149.78 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.08 mg/mL (3.12 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.08 mg/mL (3.12 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.08 mg/mL (3.12 mM); Clear solution

### BIOLOGICAL ACTIVITY

Description	Cefoperazone sodium salt (CP 52640-2), a semisynthetic cephalosporin, has a broad spectrum of antibacterial activity <sup>[1]</sup> .	
IC <sub>50</sub> & Target	β-lactam	β-lactam
In Vitro	Cefoperazone (Aerosol treatment, 60 μg/mL final concentration in lung homogenate) protects granulocytopenic mice from acute <i>Pseudomonas aeruginosa</i> pneumonia <sup>[2]</sup> .	

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MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## CUSTOMER VALIDATION

- Carbohydr Polym. 2023 Jan 1, 323, 121379.
- Toxicol Appl Pharmacol. 2023 Mar 6;116447.
- J Antibiot (Tokyo). 2023 Feb 1.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

- [1]. N Matsubara, et al. In vitro antibacterial activity of cefoperazone (T-1551), a new semisynthetic cephalosporin. Antimicrob Agents Chemother. 1979 Dec;16(6):731-5.
- [2]. Pedro H.Di Rocco, et al. Aerosol treatment with cefoperazone or gentamicin protects granulocytopenic mice from acute Pseudomonas aeruginosa pneumonia. European Journal of Pharmaceutical Sciences Volume 1, Issue 6, June 1994, Pages 285-289.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA