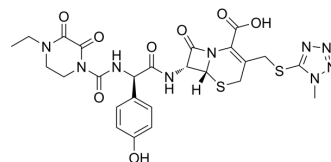


Cefoperazone

Cat. No.:	HY-B0210	
CAS No.:	62893-19-0	
Molecular Formula:	C ₂₅ H ₂₇ N ₉ O ₈ S ₂	
Molecular Weight:	645.67	
Target:	Bacterial; Antibiotic	
Pathway:	Anti-infection	
Storage:	Powder	-20°C 3 years
		4°C 2 years
	In solvent	-80°C 2 years
		-20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (154.88 mM)
 H₂O : < 0.1 mg/mL (insoluble)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.5488 mL	7.7439 mL	15.4878 mL
	5 mM	0.3098 mL	1.5488 mL	3.0976 mL
	10 mM	0.1549 mL	0.7744 mL	1.5488 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 2.5 mg/mL (3.87 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: ≥ 2.5 mg/mL (3.87 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (3.87 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Cefoperazone, a semisynthetic cephalosporin, has a broad spectrum of antibacterial activity^[1].

IC₅₀ & Target

β-lactam

β-lactam

In Vitro

Cefoperazone (Aerosol treatment, 60 μg/mL final concentration in lung homogenate) protects granulocytopenic mice from

acute *Pseudomonas aeruginosa* pneumonia^[2].

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

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

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.

Caution: Product has not been fully validated for medical applications. For research use only.

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