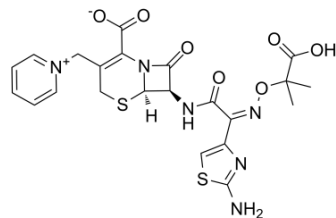


## Ceftazidime

Cat. No.:	HY-B0593
CAS No.:	72558-82-8
Molecular Formula:	C <sub>22</sub> H <sub>22</sub> N <sub>6</sub> O <sub>7</sub> S <sub>2</sub>
Molecular Weight:	546.58
Target:	Bacterial; Antibiotic
Pathway:	Anti-infection
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 100 mg/mL (182.96 mM); Need ultrasonic  
 DMSO : ≥ 46 mg/mL (84.16 mM)  
 \* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.8296 mL	9.1478 mL	18.2956 mL
	5 mM	0.3659 mL	1.8296 mL	3.6591 mL
	10 mM	0.1830 mL	0.9148 mL	1.8296 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 (182.96 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 (3.81 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.08 mg/mL (3.81 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.08 mg/mL (3.81 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Ceftazidime (GR20263) is a third generation cephalosporin administered intravenously or intramuscularly. Ceftazidime has a broad spectrum of in vitro activity against Gram-positive and Gram-negative aerobic bacteria. Ceftazidime is particularly active against Enterobacteriaceae (including beta-lactamase-positive strains) and is resistant to hydrolysis by most beta-lactamases<sup>[1]</sup>.

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## CUSTOMER VALIDATION

- Adv Sci (Weinh). 2020 Jul 21;7(17):2001374.
- J Antimicrob Chemother. 2020 Sep 1;75(9):2609-2615.
- J Antimicrob Chemother. 2020 Jul 1;75(7):1850-1858.
- Antimicrob Agents Chemother. 2018 Jul 27;62(8). pii: e00414-18.
- Int J Antimicrob Agents. 2018 Aug;52(2):269-271.

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

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## REFERENCES

[1]. Richards DM, et al. Ceftazidime. A review of its antibacterial activity, pharmacokinetic properties and therapeutic use. Drugs. 1985 Feb;29(2):105-61.

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

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