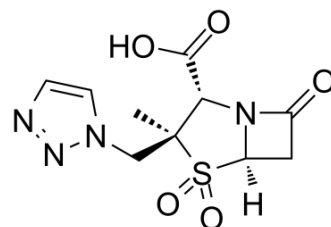


Tazobactam

Cat. No.:	HY-B1418		
CAS No.:	89786-04-9		
Molecular Formula:	C ₁₀ H ₁₂ N ₄ O ₅ S		
Molecular Weight:	300.29		
Target:	Bacterial; Antibiotic		
Pathway:	Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (166.51 mM; Need ultrasonic)
 H₂O : < 0.1 mg/mL (insoluble)

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	3.3301 mL	16.6506 mL	33.3011 mL
	5 mM	0.6660 mL	3.3301 mL	6.6602 mL
	10 mM	0.3330 mL	1.6651 mL	3.3301 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: ≥ 2.08 mg/mL (6.93 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: ≥ 2.08 mg/mL (6.93 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.08 mg/mL (6.93 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Tazobactam is a beta Lactamase Inhibitor with antibacterial activity. Target: Antibacterial. Tazobactam is a pharmaceutical drug that inhibits the action of bacterial β-lactamases, especially those belonging to the SHV-1 and TEM groups. It is commonly used as its sodium salt, Tazobactam sodium. Tazobactam is combined with the extended spectrum β-lactam antibiotic piperacillin in the drug piperacillin/Tazobactam, one of the preferred antibiotic treatments for nosocomial pneumonia caused by *Pseudomonas aeruginosa*. Tazobactam broadens the spectrum of piperacillin by making it effective against organisms that express β-lactamase and would normally degrade piperacillin. Tazobactam is derived from the

penicillin nucleus and is a penicillanic acid sulfone.

REFERENCES

- [1]. Forrester JB, et al. In Vitro Activity of Ceftolozane/Tazobactam vs Nonfermenting, Gram-Negative Cystic Fibrosis Isolates. *Open Forum Infect Dis.* 2018 Jul 2;5(7):ofy158.
- [2]. Sader HS, et al. Antimicrobial activity of CXA-101, a novel cephalosporin tested in combination with tazobactam against Enterobacteriaceae, *Pseudomonas aeruginosa*, and *Bacteroides fragilis* strains having various resistance phenotypes. *Antimicrob Agents Chemother.* 2011 May;55(5):2390-4.
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Caution: Product has not been fully validated for medical applications. For research use only.

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