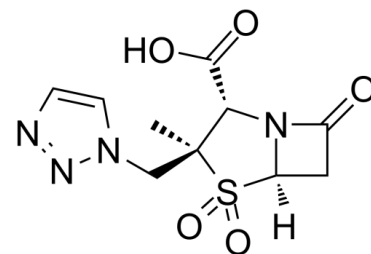


Data Sheet

Product Name:	Tazobactam
Cat. No.:	CS-4914
CAS No.:	89786-04-9
Molecular Formula:	C ₁₀ H ₁₂ N ₄ O ₅ S
Molecular Weight:	300.29
Target:	Bacterial
Pathway:	Anti-infection
Solubility:	DMSO : 50 mg/mL (166.51 mM; Need ultrasonic); H ₂ O : < 0.1 mg/mL (insoluble)



BIOLOGICAL ACTIVITY:

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.

CAIndexNames:

4-Thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, 3-methyl-7-oxo-3-(1H-1,2,3-triazol-1-ylmethyl)-, 4,4-dioxide, (2S,3S,5R)-

SMILES:

O=C([C@@H]([C@@H](CN1N=NC=C1)(C)S([C@H]2([H])C3)(=O)=O)N2C3=O)O

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

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