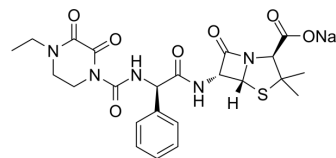


Piperacillin sodium

Cat. No.:	HY-B1286
CAS No.:	59703-84-3
Molecular Formula:	C ₂₃ H ₂₆ N ₅ NaO ₇ S
Molecular Weight:	539.54
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 : 100 mg/mL (185.34 mM; Need ultrasonic)
 H₂O : ≥ 100 mg/mL (185.34 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
	1 mM		1.8534 mL	9.2672 mL	18.5343 mL
	5 mM		0.3707 mL	1.8534 mL	3.7069 mL
	10 mM		0.1853 mL	0.9267 mL	1.8534 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 (185.34 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (4.63 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (4.63 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (4.63 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Piperacillin sodium is a broad-spectrum β-lactam antibiotic.

CUSTOMER VALIDATION

- Nat Commun. 2022 Mar 2;13(1):1116.
- Biomed Res Int. 2018 Jul 2;2018:3579832.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. Tan JS, et al. Antipseudomonal penicillins. Med Clin North Am. 1995 Jul;79(4):679-93.
- [2]. Lau WK, et al. Randomized, open-label, comparative study of piperacillin-tazobactam administered by continuous infusion versus intermittent infusion for treatment of hospitalized patients with complicated intra-abdominal infection. Antimicrob Agents Chemother. 2006 Nov;50(11):3556-61.
- [3]. Fu KP, et al. Piperacillin, a new penicillin active against many bacteria resistant to other penicillins. Antimicrob Agents Chemother. 1978 Mar;13(3):358-67.
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Caution: Product has not been fully validated for medical applications. For research use only.

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