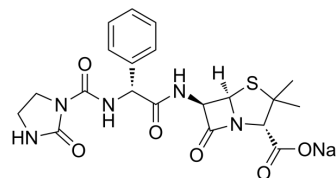


## Azlocillin sodium salt

|                           |  |
|---------------------------|--|
| <b>Cat. No.:</b>          | HY-B0529A  |
| <b>CAS No.:</b>           | 37091-65-9   |
| <b>Molecular Formula:</b> | C <sub>20</sub> H <sub>22</sub> N <sub>5</sub> NaO <sub>6</sub> S  |
| <b>Molecular Weight:</b>  | 483.47   |
| <b>Target:</b>            | Bacterial; Antibiotic; Parasite  |
| <b>Pathway:</b>           | Anti-infection   |
| <b>Storage:</b>           | 4°C, sealed storage, away from moisture<br>* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture) |



### SOLVENT & SOLUBILITY

|   |  |                      |             |             |             |              |
|---|--|----------------------|-------------|-------------|-------------|--------------|
| <b>In Vitro</b>   | DMSO : 100 mg/mL (206.84 mM; Need ultrasonic)  |                      |             |             |             |              |
|   | H <sub>2</sub> O : 6.67 mg/mL (13.80 mM; Need ultrasonic)  |                      |             |             |             |              |
|   | <b>Preparing Stock Solutions</b>   | <b>Solvent</b>       | <b>Mass</b> | <b>1 mg</b> | <b>5 mg</b> | <b>10 mg</b> |
|   |  | <b>Concentration</b> |             |             |             |              |
|   |  | <b>1 mM</b>          |             | 2.0684 mL   | 10.3419 mL  | 20.6838 mL   |
| <b>5 mM</b>   |  |                      | 0.4137 mL   | 2.0684 mL   | 4.1368 mL   |              |
| <b>10 mM</b>  |  | 0.2068 mL            | 1.0342 mL   | 2.0684 mL   |             |              |
| Please refer to the solubility information to select the appropriate solvent. |  |                      |             |             |             |              |
| <b>In Vivo</b>  | 1. Add each solvent one by one: PBS<br>Solubility: 100 mg/mL (206.84 mM); Clear solution; Need ultrasonic                                |                      |             |             |             |              |
|   | 2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline<br>Solubility: ≥ 2.5 mg/mL (5.17 mM); Clear solution |                      |             |             |             |              |
|   | 3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)<br>Solubility: ≥ 2.5 mg/mL (5.17 mM); Clear solution            |                      |             |             |             |              |
|   | 4. Add each solvent one by one: 10% DMSO >> 90% corn oil<br>Solubility: ≥ 2.5 mg/mL (5.17 mM); Clear solution                            |                      |             |             |             |              |

### BIOLOGICAL ACTIVITY

|                                     |  |          |
|-------------------------------------|--|----------|
| <b>Description</b>                  | Azlocillin sodium salt (Sodium azlocillin), a semisynthetic penicillin, is a broad spectrum β-lactam antibiotic. Azlocillin sodium salt shows antipseudomonal activity, and also potent against the malarial parasite Plasmodium falciparum <sup>[1][2][3]</sup> . |          |
| <b>IC<sub>50</sub> &amp; Target</b> | Plasmodium   | β-lactam |
| <b>In Vitro</b>                     | Over 75% of the isolates of Pseudomonas aeruginosa are inhibited by Azlocillin at a concentration of 12.5 μg/mL. Azlocillin is   |          |

---

also active against indole-negative and -positive *Proteus* spp., inhibiting 98% and 71%, respectively, at a concentration of 12.5 µg/mL. Gram-positive cocci except penicillin G-resistant *Staphylococcus aureus* are susceptible to Azlocillin<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

**In Vivo**

Azlocillin (75 mg/kg) treatment increases the survival of neutropenic mice infected with *Escherichia coli* or *Klebsiella pneumoniae*<sup>[2]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

---

**REFERENCES**

[1]. D Stewart, et al. Azlocillin: in vitro studies of a new semisynthetic penicillin. *Antimicrob Agents Chemother.* 1977 May;11(5):865-70.

[2]. S H Zinner, et al. In vitro and in vivo studies of three antibiotic combinations against gram-negative bacteria and *Staphylococcus aureus*. *Antimicrob Agents Chemother.* 1981 Oct;20(4):463-9.

[3]. Jennifer L Weisman, et al. Searching for new antimalarial therapeutics amongst known drugs. *Chem Biol Drug Des.* 2006 Jun;67(6):409-16.

---

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA