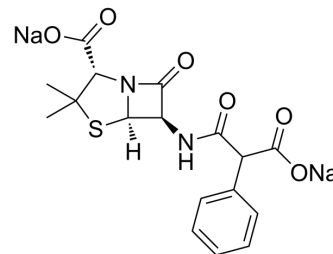


## Carbenicillin disodium

<b>Cat. No.:</b>	HY-B0525A
<b>CAS No.:</b>	4800-94-6
<b>Molecular Formula:</b>	C <sub>17</sub> H <sub>16</sub> N <sub>2</sub> Na <sub>2</sub> O <sub>6</sub> S
<b>Molecular Weight:</b>	422.36
<b>Target:</b>	Bacterial; Antibiotic
<b>Pathway:</b>	Anti-infection
<b>Storage:</b>	4°C, sealed storage, away from moisture and light * The compound is unstable in solutions, freshly prepared is recommended.



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 125 mg/mL (295.96 mM; Need ultrasonic)  
DMSO : 62.5 mg/mL (147.98 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.3676 mL	11.8382 mL	23.6765 mL
	5 mM	0.4735 mL	2.3676 mL	4.7353 mL
	10 mM	0.2368 mL	1.1838 mL	2.3676 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 (236.76 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 (4.92 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.08 mg/mL (4.92 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.08 mg/mL (4.92 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Carbenicillin disodium (Sodium carbenicillin) is a broad-spectrum semi-synthetic penicillin antibiotic for gram-negative bacteria. Carbenicillin disodium can interfere the cell wall synthesis while displaying low toxicity to plant tissue<sup>[1]</sup>.

#### IC<sub>50</sub> & Target

β-lactam

#### In Vivo

Carbenicillin (100-400 mg/kg; intramuscular injection every 8 h for 72 h) disodium significantly reduces mortality of

---

neutropenic *Pseudomonas*-infected rats<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

---

## CUSTOMER VALIDATION

- Antimicrob Agents Chemother. 2023 May 18;e0160322.
- Microbiol Spectr. 2023 Apr 24;e0069223.
- Microbiol Spectr. 2022 Dec 8;e0303822.
- ChemRxiv. 2020 Apr.

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

## REFERENCES

[1]. Scott RE, et, al. Synergistic activity of carbenicillin and gentamicin in experimental *Pseudomonas* bacteremia in neutropenic rats. Antimicrob Agents Chemother. 1976 Oct;10(4):646-51.

[2]. Neu HC, et, al. Carbenicillin and ticarcillin. Med Clin North Am. 1982 Jan;66(1):61-77.

---

**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