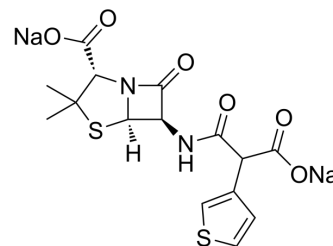


## (2S,5R,6R)-Ticarcillin disodium

<b>Cat. No.:</b>	HY-B1175
<b>CAS No.:</b>	4697-14-7
<b>Molecular Formula:</b>	C <sub>15</sub> H <sub>14</sub> N <sub>2</sub> Na <sub>2</sub> O <sub>6</sub> S <sub>2</sub>
<b>Molecular Weight:</b>	428.39
<b>Target:</b>	Bacterial; Antibiotic
<b>Pathway:</b>	Anti-infection
<b>Storage:</b>	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 125 mg/mL (291.79 mM; Need ultrasonic)  
 H<sub>2</sub>O : ≥ 100 mg/mL (233.43 mM)  
 \* "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.3343 mL	11.6716 mL	23.3432 mL
	5 mM	0.4669 mL	2.3343 mL	4.6686 mL
	10 mM	0.2334 mL	1.1672 mL	2.3343 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 (233.43 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 (4.86 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.08 mg/mL (4.86 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.08 mg/mL (4.86 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

(2S,5R,6R)-Ticarcillin disodium is an injectable antibiotic for the treatment of Gram-negative bacteria, particularly *Pseudomonas aeruginosa*. It is also one of the few antibiotics capable of treating *Stenotrophomonas maltophilia* infections.

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## REFERENCES

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[1]. Spierer O, et al. Comparative activity of antimicrobials against *Pseudomonas aeruginosa*, *Achromobacter xylosoxidans* and *Stenotrophomonas maltophilia* keratitis isolates. *Br J Ophthalmol*. 2018 May;102(5):708-712.

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

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