# **Screening Libraries**

# **Product** Data Sheet

# **Biapenem**

Cat. No.: HY-13573 CAS No.: 120410-24-4 Molecular Formula:  $C_{15}H_{18}N_4O_4S$ Molecular Weight: 350.39

Target: Bacterial; Antibiotic; Beta-lactamase

Pathway: Anti-infection

Storage: Powder -20°C 3 years

4°C 2 years

In solvent -80°C 2 years

> -20°C 1 year

### **SOLVENT & SOLUBILITY**

In Vitro

H<sub>2</sub>O: 10 mg/mL (28.54 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.8540 mL	14.2698 mL	28.5396 mL
	5 mM	0.5708 mL	2.8540 mL	5.7079 mL
	10 mM	0.2854 mL	1.4270 mL	2.8540 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: PBS

Solubility: 11.11 mg/mL (31.71 mM); Clear solution; Need ultrasonic and warming and heat to 60°C

### **BIOLOGICAL ACTIVITY**

Description	Biapenem (CLI 86815; L 627; LJC 10627) a parenteral carbapenem antibacterial agent with a broad spectrum.
IC <sub>50</sub> & Target	β-lactam
In Vitro	Biapenem (CLI 86815) is a carbapenem antibiotic of in vitro antibacterial activity encompassing many Gramnegative and Gram-positive aerobic and anaerobic bacteria, including species producing β-lactamases. Biapenem (CLI 86815) is more stable than imipenem, mero-penem and panipenem to hydrolysis by human renal dihydropeptidase-I (DHP-I), and therefore does not require the coadministration of a DHP-I inhibitor. In randomised, nonblind or double-blind clinical trials, biapenem showed good clinical and bacteriological efficacy (similar to that of imipenem/ cilastatin) in the treatment of adult patients with intra-abdominal infections, lower respiratory infections or complicated urinary tract infections.  MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## **CUSTOMER VALIDATION**

- George Mason University. College of Science.
- Biomed Res Int. 2018 Jul 2;2018:3579832.

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### **REFERENCES**

[1]. Perry, C.M. and T. Ibbotson, Biapenem. Drugs, 2002. 62(15): p. 2221-34; discussion 2235.

[2]. Kasahara, S., et al., [Clinical effects of biapenem on febrile neutropenia in patients with hematological malignancy]. Jpn J Antibiot, 2008. 61(3): p. 115-21.

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

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