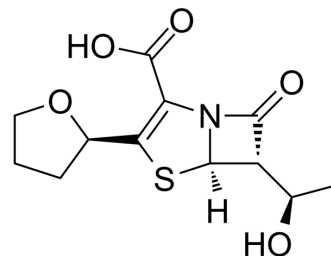


## Faropenem

<b>Cat. No.:</b>	HY-A0035
<b>CAS No.:</b>	106560-14-9
<b>Molecular Formula:</b>	C <sub>12</sub> H <sub>15</sub> NO <sub>5</sub> S
<b>Molecular Weight:</b>	285.32
<b>Target:</b>	Antibiotic
<b>Pathway:</b>	Anti-infection
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Faropenem is a potent and orally active beta-lactam antibiotic. Faropenem demonstrates broad-spectrum in vitro antimicrobial activity against many gram-positive and -negative aerobes and anaerobes. Faropenem is resistant to hydrolysis by nearly all beta-lactamases, including extended-spectrum beta-lactamases and AmpC beta-lactamases. Faropenem is developed as an oral prodrug, faropenem medoxomil, for the research of respiratory tract infections <sup>[1][2]</sup> .
<b>In Vitro</b>	Faropenem is not active against methicillin-resistant <i>Staphylococcus aureus</i> , vancomycin-resistant <i>Enterococcus faecium</i> , <i>Pseudomonas aeruginosa</i> or <i>Stenotrophomonas maltophilia</i> <sup>[1]</sup> . Faropenem is against all isolates of <i>B. anthracis</i> . The MIC values ranged from ≤0.06 to >64 µg/liter, and the MIC <sub>90</sub> value is 0.5 µg/ml. The MIC <sub>90</sub> value for Faropenem is lower than that observed for other β-lactams, such as Meropenem, Amoxicillin-clavulanate, and Penicillin, for which the MIC <sub>90</sub> values are 4 µg/ml, 4 µg/ml, and 8 µg/ml, respectively <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>In Vivo</b>	Faropenem ( i.p. at 24 h postchallenge at 4-, 6-, and 12-h intervals; 10, 20, 40, and 80 mg/kg/day; 14 days) demonstrates a high level of activity against <i>B. anthracis</i> in the murine post-exposure prophylaxis inhalation model <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. Kristen N Schurek, et al. Faropenem: review of a new oral penem. *Expert Rev Anti Infect Ther.* 2007 Apr;5(2):185-98.
- [2]. Stanley C Gill, et al. Pharmacokinetic-pharmacodynamic assessment of faropenem in a lethal murine *Bacillus anthracis* inhalation postexposure prophylaxis model. *Antimicrob Agents Chemother.* 2010 May;54(5):1678-83.

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

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