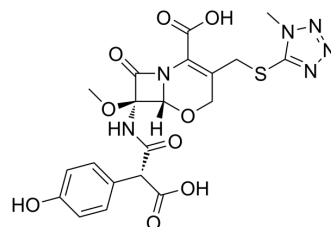


Moxalactam

Cat. No.:	HY-B1484A
CAS No.:	64952-97-2
Molecular Formula:	C ₂₀ H ₂₀ N ₆ O ₉ S
Molecular Weight:	520.47
Target:	Bacterial; Antibiotic; Beta-lactamase
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Moxalactam (Latamoxef) is a synthetic oxa-β-lactam antibiotic. Moxalactam has a broad spectrum of activity against Gram-positive and Gram-negative aerobic and anaerobic bacteria. Moxalactam inhibits production of β-lactamases ^[1] .								
IC₅₀ & Target	β-lactam								
In Vitro	<p>Moxalactam (Latamoxef) inhibits 90% of strains of <i>Escherichia coli</i>, <i>Klebsiella</i> species, <i>Proteus</i> species, <i>Morganella morganii</i>, <i>Neisseria gonorrhoeae</i>, <i>Neisseria meningitidis</i>, <i>Haemophilus influenzae</i> and <i>Salmonella</i> species, including strains which are resistant to Cephalothin (HY-B1275A) and Gentamicin (HY-A0276A) at concentrations of less than 1 μg/mL^[1].</p> <p>Moxalactam exhibits moderate activity against <i>P. aeruginosa</i> and is usually active against other species of <i>Pseudomonas</i>, <i>Acinetobacter</i> species are usually resistant to Moxalactam^[1].</p> <p>Moxalactam has marked stability in vitro against a variety of β-lactamases, including that produced by <i>B. fragilis</i>, inhibits production of β-lactamases and does not induce class I β-lactamase^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>								
In Vivo	<p>Moxalactam (Latamoxef) (0-7.4 mg/mouse; s.c.; once) is effective against bacterial infections in mice^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>Four-week-old male strain ICR mice, weighing 18-20 g, bacterial infection model^[2]</td> </tr> <tr> <td>Dosage:</td> <td>0-7.4 mg/mouse</td> </tr> <tr> <td>Administration:</td> <td>Subcutaneous injection, once</td> </tr> <tr> <td>Result:</td> <td>Showed protective activity with ED₅₀s less than 7.4 mg/mouse against gram-positive and gram-negative bacterial infected mice.</td> </tr> </table>	Animal Model:	Four-week-old male strain ICR mice, weighing 18-20 g, bacterial infection model ^[2]	Dosage:	0-7.4 mg/mouse	Administration:	Subcutaneous injection, once	Result:	Showed protective activity with ED ₅₀ s less than 7.4 mg/mouse against gram-positive and gram-negative bacterial infected mice.
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CUSTOMER VALIDATION

- Biomed Res Int. 2018 Jul 2;2018:3579832.

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REFERENCES

- [1]. Goto S. In vitro and in vivo antibacterial activity of moxalactam, an oxa- β -lactam antibiotic. *Clinical Infectious Diseases*, 1982, 4(Supplement_3): S501-S510.
- [2]. Carmine AA, et al. Moxalactam (latamoxef). A review of its antibacterial activity, pharmacokinetic properties and therapeutic use. *Drugs*. 1983 Oct;26(4):279-333.
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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

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