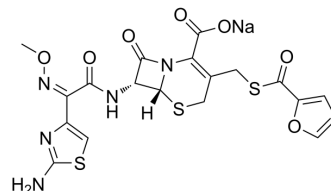


Ceftiofur sodium

Cat. No.:	HY-B0898
CAS No.:	104010-37-9
Molecular Formula:	C ₁₉ H ₁₆ N ₅ NaO ₇ S ₃
Molecular Weight:	545.54
Target:	Bacterial; Antibiotic
Pathway:	Anti-infection
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (91.65 mM); ultrasonic and warming and heat to 60°C																	
	<table border="1"> <thead> <tr> <th rowspan="2">Solvent Concentration</th> <th rowspan="2">Mass</th> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> </thead> <tbody> <tr> <td>1 mM</td> <td>1.8330 mL</td> <td>9.1652 mL</td> <td>18.3305 mL</td> </tr> <tr> <td>5 mM</td> <td>0.3666 mL</td> <td>1.8330 mL</td> <td>3.6661 mL</td> </tr> <tr> <td>10 mM</td> <td>0.1833 mL</td> <td>0.9165 mL</td> <td>1.8330 mL</td> </tr> </tbody> </table>	Solvent Concentration	Mass	1 mg	5 mg	10 mg	1 mM	1.8330 mL	9.1652 mL	18.3305 mL	5 mM	0.3666 mL	1.8330 mL	3.6661 mL	10 mM	0.1833 mL	0.9165 mL	1.8330 mL
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	Please refer to the solubility information to select the appropriate solvent.																	
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: 1.67 mg/mL (3.06 mM); Clear solution; Need ultrasonic Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 1.67 mg/mL (3.06 mM); Clear solution; Need ultrasonic 																	

BIOLOGICAL ACTIVITY

Description	Ceftiofurna sodium is a third-generation cephalosporin antibiotic approved for veterinary use.
IC₅₀ & Target	β-lactam

CUSTOMER VALIDATION

- Nat Commun. 2020 Apr 14;11(1):1792.
- Mol Syst Biol. 2022 Sep;18(9):e11081.

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- Vet Microbiol. 2024 May, 292, 110046.

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REFERENCES

- [1]. Dutil L, et al. Ceftiofur resistance in Salmonella enterica serovar Heidelberg from chicken meat and humans, Canada. Emerg Infect Dis. 2010 Jan;16(1):48-54.
- [2]. Yancey RJ Jr, et al. Ceftiofur sodium, a broad-spectrum cephalosporin: evaluation in vitro and in vivo in mice. Am J Vet Res. 1987 Jul;48(7):1050-3.
- [3]. Salmon SA, et al. In vitro activity of ceftiofur and its primary metabolite, desfuroylceftiofur, against organisms of veterinary importance. J Vet Diagn Invest. 1996 Jul;8(3):332-6.
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Caution: Product has not been fully validated for medical applications. For research use only.

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