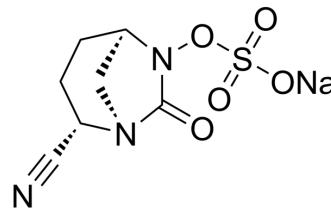


WCK-4234

Cat. No.:	HY-125604
CAS No.:	1804915-68-1
Molecular Formula:	C ₇ H ₈ N ₃ NaO ₅ S
Molecular Weight:	269.21
Target:	Bacterial; Beta-lactamase
Pathway:	Anti-infection
Storage:	-20°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 : 100 mg/mL (371.46 mM; Need ultrasonic)				
		Solvent Concentration	Mass		
	Preparing Stock Solutions		1 mg	5 mg	10 mg
		1 mM	3.7146 mL	18.5729 mL	37.1457 mL
		5 mM	0.7429 mL	3.7146 mL	7.4291 mL
10 mM	0.3715 mL	1.8573 mL	3.7146 mL		
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (9.29 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (9.29 mM); Clear solution				
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (9.29 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	WCK-4234 is a potent β-lactamase inhibitor. WCK-4234 inhibits class A, C, and D β-lactamases activity. WCK-4234 lacks direct antibacterial activity. WCK-4234 potentiates imipenem and meropenem against Enterobacteriaceae with OXA-48/OXA-181 or KPC enzymes, or with combinations of impermeability and AmpC or ESBL activity. WCK-4234 distinctively overcomes resistance mediated by OXA-type carbapenemases ^{[1][2]} .
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REFERENCES

[1]. Iregui A, et al. Activity of Meropenem with a Novel Broader-Spectrum β-Lactamase Inhibitor, WCK 4234, against Gram-Negative Pathogens Endemic to New York City.

Antimicrob Agents Chemother. 2019 Dec 20;64(1):e01666-19.

[2]. Mushtaq S, et al. WCK 4234, a novel diazabicyclooctane potentiating carbapenems against Enterobacteriaceae, Pseudomonas and Acinetobacter with class A, C and D β -lactamases. J Antimicrob Chemother. 2017 Jun 1;72(6):1688-1695.

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