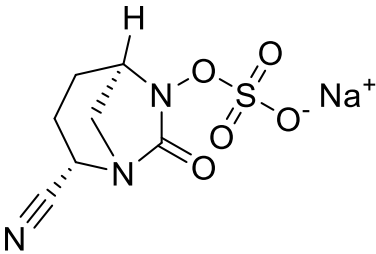


# Product data sheet



MedKoo Cat#: 555243 Name: WCK-4234 sodium CAS: 1804915-68-1 (sodium) Chemical Formula: C <sub>7</sub> H <sub>8</sub> N <sub>3</sub> NaO <sub>5</sub> S Exact Mass: 269.0082 Molecular Weight: 269.2068		
Product supplied as:	Powder	
Purity (by HPLC):	≥ 98%	
Shipping conditions	Ambient temperature	
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.	

## 1. Product description:

WCK-4234 is a potent  $\beta$ -lactamase inhibitor. WCK-4234 inhibited class A, C and D  $\beta$ -lactamases with unprecedented  $k_2/K$  values against OXA carbapenemases. WCK-4234 inhibited class A, C and D  $\beta$ -lactamases with unprecedented  $k_2/K$  values against OXA carbapenemases. WCK-4234 formed highly stable acyl-complexes via mass spectrometry. WCK-4234 is a novel  $\beta$ -lactamase inhibitor that demonstrate potent cross-class inhibition and clinical studies targeting MDR infections are warranted.

## 2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

## 3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
TBD	TBD	TBD

## 4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	3.71 mL	18.57 mL	37.15 mL
5 mM	0.74 mL	3.71 mL	7.43 mL
10 mM	0.37 mL	1.86 mL	3.71 mL
50 mM	0.07 mL	0.37 mL	0.74 mL

## 5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

## 6. Recommended literature which reported protocols for in vitro and in vivo study

### In vitro study

- Iregui A, Khan Z, Landman D, Quale J. Activity of Meropenem with a Novel Broader-Spectrum  $\beta$ -Lactamase Inhibitor, WCK 4234, against Gram-Negative Pathogens Endemic to New York City. Antimicrob Agents Chemother. 2019 Dec 20;64(1):e01666-19. doi: 10.1128/AAC.01666-19. PMID: 31611363; PMCID: PMC7187611.
- Papp-Wallace KM, Nguyen NQ, Jacobs MR, Bethel CR, Barnes MD, Kumar V, Bajaksouzian S, Rudin SD, Rather PN, Bhavsar S, Ravikumar T, Deshpande PK, Patil V, Yeole R, Bhagwat SS, Patel MV, van den Akker F, Bonomo RA. Strategic Approaches to Overcome Resistance against Gram-Negative Pathogens Using  $\beta$ -Lactamase Inhibitors and  $\beta$ -Lactam Enhancers: Activity of Three Novel Diazabicyclooctanes WCK 5153, Zidebactam (WCK 5107), and WCK 4234. J Med Chem. 2018 May 10;61(9):4067-4086. doi: 10.1021/acs.jmedchem.8b00091. Epub 2018 Apr 20. PMID: 29627985; PMCID: PMC6131718.

### In vivo study

TBD

## 7. Bioactivity

### Biological target:

WCK-4234 is a potent  $\beta$ -lactamase inhibitor.

# Product data sheet



## In vitro activity

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From the contemporary collection, this study found (i) that all *Enterobacteriaceae* were susceptible to meropenem plus WCK 4234, (ii) that susceptibility rates for *Acinetobacter baumannii* were 56.5% for meropenem alone, 82.6% with 4 µg/ml WCK 4234, and 95.7% with 8 µg/ml WCK 4234, and (iii) that WCK 4234 had a modest effect on susceptibility of *Pseudomonas aeruginosa*.

Reference: Antimicrob Agents Chemother. 2019 Dec 20;64(1):e01666-19. <https://pubmed.ncbi.nlm.nih.gov/31611363/>

## In vivo activity

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TBD

*Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.*