

# Product data sheet



MedKoo Cat#: 558446 Name: GW779439X CAS: 551919-98-3 Chemical Formula: C <sub>22</sub> H <sub>21</sub> F <sub>3</sub> N <sub>8</sub> Exact Mass: 454.1841 Molecular Weight: 454.4612		
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:

GW779439X is a cyclin dependent kinase inhibitor.

## 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
DMSO	31.25	68.76

## 4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.20 mL	11.00 mL	22.00 mL
5 mM	0.44 mL	2.20 mL	4.40 mL
10 mM	0.22 mL	1.10 mL	2.20 mL
50 mM	0.04 mL	0.22 mL	0.44 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

1. Schaezner AJ, Wlodarchak N, Drewry DH, Zuercher WJ, Rose WE, Ferrer CA, Sauer JD, Striker R. GW779439X and Its Pyrazolopyridazine Derivatives Inhibit the Serine/Threonine Kinase Stk1 and Act As Antibiotic Adjuvants against  $\beta$ -Lactam-Resistant *Staphylococcus aureus*. ACS Infect Dis. 2018 Oct 12;4(10):1508-1518. doi: 10.1021/acsinfecdis.8b00136. Epub 2018 Aug 15. PMID: 30059625; PMCID: PMC6779124.

### In vivo study

TBD

## 7. Bioactivity

### Biological target:

GW779439X is a pyrazolopyridazine identified in an inhibitor of the *S. aureus* PASTA kinase Stk1. GW779439X potentiates the activity of  $\beta$ -lactam antibiotics against various MRSA and MSSA isolates, some even crossing the breakpoint from resistant to sensitive. GW779439X is an AURKA inhibitor and induces apoptosis by the caspases 3/7 pathway.

### In vitro activity

As can be seen in Table 1, GW779439X was able to potentiate the activity of all  $\beta$ -lactams tested, particularly the penicillinase-resistant penicillins oxacillin and nafcillin to an MIC considered susceptible to these agents.

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Reference: ACS Infect Dis. 2018 Oct 12;4(10):1508-1518. <https://pubmed.ncbi.nlm.nih.gov/30059625/>

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.*