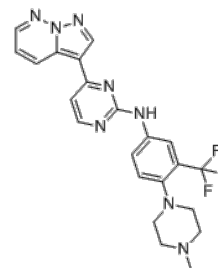


**Product Name** : GW779439X  
**Cat. No.** : PC-38471  
**CAS No.** : 551919-98-3  
**Molecular Formula** : C<sub>22</sub>H<sub>21</sub>F<sub>3</sub>N<sub>8</sub>  
**Molecular Weight** : 454.461  
**Target** : Bacterial  
**Solubility** : 10 mM in DMSO



### Biological Activity

GW779439X is a small-molecule kinase inhibitor that sensitizes methicillin-resistant *Staphylococcus aureus* (MRSA) to  $\beta$ -lactam antibiotics via inhibition of the PASTA kinase **Stk1**.

GW779439X potentiates  $\beta$ -lactam activity against multiple MRSA and MSSA isolates, including the sensitization of a ceftaroline-resistant isolate to ceftaroline.

GW779439X potentiates  $\beta$ -lactam activity via direct inhibition of Stk1.

GW779439X also interacts in the active site of the Aurora-a kinase (AURKA) enzyme.

GW779439X was originally designed for human **CDK4** but failed to progress clinically because of high toxicity and low specificity.

The penicillin-binding-protein and serine/threonine kinase-associated (PASTA) kinases has attracted attention as targets for antibiotic adjuvants for  $\beta$ -lactams.

### References

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Mesquita FP, et al. *J Cell Biochem*. 2021 Oct;122(10):1376-1388.

Wlodarchak N, et al. *ACS Med Chem Lett*. 2021 Jan 13;12(2):228-235.

**Caution: Product has not been fully validated for medical applications. Lab Use Only!**

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