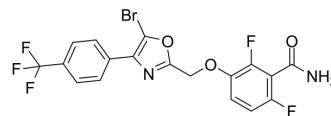


## TXA6101

<b>Cat. No.:</b>	HY-150699
<b>CAS No.:</b>	1459695-66-9
<b>Molecular Formula:</b>	C <sub>18</sub> H <sub>10</sub> BrF <sub>5</sub> N <sub>2</sub> O <sub>3</sub>
<b>Molecular Weight:</b>	477.18
<b>Target:</b>	Bacterial
<b>Pathway:</b>	Anti-infection
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	TXA6101 is a bacterial protein FtsZ (filamentous temperature-sensitive protein Z) inhibitor that inhibits bacterial division. TXA6101 has antimicrobial activity against MRSA isolates expressing either the G193D or G196S mutant FtsZ with the MIC value of 1 µg/mL, retains significant activity against the TXA707-resistant FtsZ mutant. TXA6101 can be used as a potential method against Gram-negative bacterial infections <sup>[1][2]</sup> .
<b>In Vitro</b>	TXA6101 has antibacterial activity against MRSA with the MIC value of 0.125 µg/mL while TXA707 with the MIC value of 1 µg/mL <sup>[2]</sup> . TXY6129 inhibits the polymerization of Escherichia coli FtsZ in a concentration-dependent manner and induces morphological changes in Escherichia coli and Klebsiella pneumoniae <sup>[3]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. Andrea Casiraghi, et al. Targeting Bacterial Cell Division: A Binding Site-Centered Approach to the Most Promising Inhibitors of the Essential Protein FtsZ. *Antibiotics* (Basel). 2020 Feb 7;9(2):69.
- [2]. Junso Fujita, et al. Structural Flexibility of an Inhibitor Overcomes Drug Resistance Mutations in Staphylococcus aureus FtsZ. *ACS Chem Biol*. 2017 Jul 21;12(7):1947-1955.
- [3]. Jesus D Rosado-Lugo, et al. Evaluation of 2,6-difluoro-3-(oxazol-2-ylmethoxy)benzamide chemotypes as Gram-negative FtsZ inhibitors. *J Antibiot* (Tokyo). 2022 Jul;75(7):385-395.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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