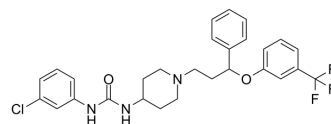


## Antibacterial agent 139

Cat. No.:	HY-149095
Molecular Formula:	C <sub>28</sub> H <sub>29</sub> ClF <sub>3</sub> N <sub>3</sub> O <sub>2</sub>
Molecular Weight:	532
Target:	Bacterial
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Antibacterial agent 139 has antibacterial activity against Gram-positive bacteria. Antibacterial agent 139 has anti-MRSA, anti-VISA, and anti-LRSE activities. Antibacterial agent 139 depolarizes the bacterial cell membrane <sup>[1]</sup> .								
<b>In Vitro</b>	<p>Antibacterial agent 139 (Compound 44) (18 h) inhibits the growth of biofilm-forming <i>S. aureus</i> and <i>S. epidermidis</i> strains, with MIC values less than 12.5 µg/mL<sup>[1]</sup>.</p> <p>Antibacterial agent 139 (24 h) shows cytotoxicity against lung and skin fibroblast cell lines (MCR-5 and BJ), with IC<sub>50</sub>s of 12.5 and &gt;25 µg/mL<sup>[1]</sup>.</p> <p>Antibacterial agent 139 (60 min) is metabolically stable in rat liver microsomes, displaying a low Clearance value (8.94 µL/min/mg)<sup>[1]</sup>.</p> <p>Antibacterial agent 139 depolarizes the bacterial cell membrane<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Viability Assay<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>MSSA, MSSE, SP, MRSA, VISA, LRSE</td> </tr> <tr> <td>Concentration:</td> <td>0-12.5 µg/mL</td> </tr> <tr> <td>Incubation Time:</td> <td>18 h</td> </tr> <tr> <td>Result:</td> <td>MIC values : 3.125, 3.125, 6.25, 0.78, 3.125, 3.125 µg/mL respectively.</td> </tr> </table>	Cell Line:	MSSA, MSSE, SP, MRSA, VISA, LRSE	Concentration:	0-12.5 µg/mL	Incubation Time:	18 h	Result:	MIC values : 3.125, 3.125, 6.25, 0.78, 3.125, 3.125 µg/mL respectively.
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### REFERENCES

[1]. Canale V, et al. Design and synthesis of novel arylurea derivatives of aryloxy(1-phenylpropyl) alicyclic diamines with antimicrobial activity against multidrug-resistant Gram-positive bacteria. *Eur J Med Chem.* 2023 May 5;251:115224.

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

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