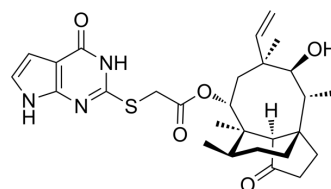


## Antibacterial agent 127

<b>Cat. No.:</b>	HY-151937
<b>Molecular Formula:</b>	C <sub>28</sub> H <sub>37</sub> N <sub>3</sub> O <sub>5</sub> S
<b>Molecular Weight:</b>	527.68
<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>	Antibacterial agent 127 (Compound 23) is a potent antibacterial agent <sup>[1]</sup> .								
<b>IC<sub>50</sub> &amp; Target</b>	Bacterial <sup>[1]</sup>								
<b>In Vitro</b>	<p>Antibacterial agent 127 (Compound 23) (0-64 µg/mL; 20 h) shows antibacterial activity with MICs of 0.063, 0.063, 0.063, 0.25, 32 and 64 µg/mL against MSSA ATCC29213, MSSA ATCC25923, MRSA, MRSEb, E.coli ATCC25922 and S.pullorum, respectively. And shows low cytotoxicity to RAW 264.7 cells (IC<sub>50</sub> 100 µM)<sup>[1]</sup>.</p> <p>Antibacterial agent 127 shows good metabolic stability (t<sub>1/2</sub> = 3.25 min in rat liver microsomes)<sup>[1]</sup>.</p> <p>Antibacterial agent 127 exhibits moderate inhibition effect on CYP3A4 (Midazolam) and CYP3A4 (Testosterone), with IC<sub>50</sub> values of 2.64 and 1.94 µM, respectively<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>								
<b>In Vivo</b>	<p>Antibacterial agent 127 (Compound 23) (50 mg/kg; i.p.; single dose) inhibits MRSA effectively in a mouse thigh infection model<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Animal Model:</td> <td>Female Kunming mice, neutropenic mouse thigh infection model<sup>[1]</sup></td> </tr> <tr> <td>Dosage:</td> <td>50 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>Intraperitoneal injection, single dose</td> </tr> <tr> <td>Result:</td> <td>Reduced bacteria count with a value of 1.84 log<sub>10</sub> CFU/mL in comparison with vehicle control group.</td> </tr> </table>	Animal Model:	Female Kunming mice, neutropenic mouse thigh infection model <sup>[1]</sup>	Dosage:	50 mg/kg	Administration:	Intraperitoneal injection, single dose	Result:	Reduced bacteria count with a value of 1.84 log <sub>10</sub> CFU/mL in comparison with vehicle control group.
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### REFERENCES

[1]. Deng Y, et al. Antibacterial activity evaluation of pleuromutilin derivatives with 4(3H)-quinazolinone scaffold against methicillin-resistant Staphylococcus aureus. Eur J Med Chem. 2022 Nov 23;246:114960.

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

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