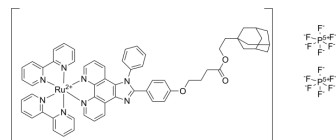


## Antibacterial agent 207

Cat. No.:	HY-162451
Molecular Formula:	C <sub>61</sub> H <sub>56</sub> F <sub>12</sub> N <sub>8</sub> O <sub>3</sub> P <sub>2</sub> Ru
Molecular Weight:	1340.15
Target:	Reactive Oxygen Species; Bacterial; Glucosidase
Pathway:	Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB; Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Antibacterial agent 207 (Compound Ru1) has antibacterial activity against <i>S. aureus</i> (MIC: 1 µg/mL), and low resistance frequencies. Antibacterial agent 207 destroys the bacterial cell membrane, promote production of ROS in bacteria <sup>[1]</sup> .
<b>In Vitro</b>	Antibacterial agent 207 (1 and 2 µg/mL) shows damage on bacterial membrane of <i>S. aureus</i> (PI staining), and induces release of β-galactosidase <sup>[1]</sup> . Antibacterial agent 207 (1 and 2 µg/mL, 2 h) cause a range of oxidative stress damage, induces ROS in <i>S. aureus</i> <sup>[1]</sup> . Antibacterial agent 207 (0.25 or 0.5 µg/mL, 48 h) inhibit the secretion of α-toxin and bacterial biofilm formation in <i>S. aureus</i> <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>In Vivo</b>	Antibacterial agent 207 (5 mg/kg, 5 µL, injected at the right gastropoda) shows anti-infective effect and increases survival in <i>G. mellonella</i> infected with <i>S. aureus</i> <sup>[1]</sup> . Antibacterial agent 207 (100 µg/mL, applied to the wound, twice a day) has robust anti-infective efficacy against <i>S. aureus</i> in mice skin infected with <i>S. aureus</i> <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

[1]. Wang L, et al. Design, synthesis, anti-infective potency and mechanism study of novel Ru-based complexes containing substituted adamantane as antibacterial agents. *Eur J Med Chem.* 2024 Apr 2;270:116378.

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

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