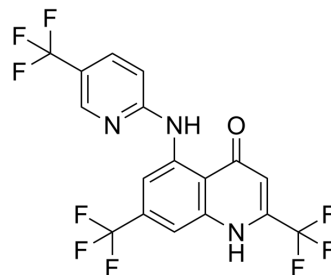


Antibacterial agent 123

Cat. No.:	HY-151567
CAS No.:	2615254-55-0
Molecular Formula:	C ₁₇ H ₈ F ₉ N ₃ O
Molecular Weight:	441.25
Target:	Bacterial
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Antibacterial agent 123 (compound 111) is a potent membrane-disrupting agent to combat antibiotic-resistant Gram-positive bacteria ^[1] .																										
In Vitro	Antibacterial agent 123 (compound 111) shows excellent activity (MIC<0.0625 µg/mL) toward <i>S. aureus</i> strains ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.																										
In Vivo	<p>Antibacterial agent 123 (compound 111) (p.o. (10 mg/kg) and i.v. (0.5 mg/kg); once) exhibits favorable pharmacokinetics profiles^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>Female CD-1 mice^[1]</td> </tr> <tr> <td>Dosage:</td> <td>0.5 mg/kg, 10 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>p.o. (10 mg/kg) and i.v. (0.5 mg/kg); once (Pharmacokinetic Analysis)</td> </tr> <tr> <td>Result:</td> <td> <p>Pharmacokinetic Parameters of Antibacterial agent 123 in Female CD-1 Mice^[1].</p> <table border="1"> <thead> <tr> <th>pharmacokinetic indices</th> <th>dose i.v., p.o. (mg/kg)</th> <th>AUC₀₋₂₄ (i.v., h·ng/mL)</th> <th>Vd (i.v., mL/kg)</th> <th>CL (i.v., mL/(kg·h))</th> <th>t_{1/2} (i.v., h)</th> <th>AUC₀₋₂₄ (p.o., h·ng/mL)</th> <th>C_{max} (p.o., ng/mL)</th> <th>F (%)</th> </tr> </thead> <tbody> <tr> <td>compound 111</td> <td>0.5, 10</td> <td>(4.20 × 10³) ± 308</td> <td>322 ± 24</td> <td>119 ± 9.2</td> <td>1.88 ± 0.08</td> <td>(4.33 × 10⁴) ± 543</td> <td>(3.10 × 10³) ± 780</td> <td>51.6 ± 5.2</td> </tr> </tbody> </table> </td> </tr> </table>	Animal Model:	Female CD-1 mice ^[1]	Dosage:	0.5 mg/kg, 10 mg/kg	Administration:	p.o. (10 mg/kg) and i.v. (0.5 mg/kg); once (Pharmacokinetic Analysis)	Result:	<p>Pharmacokinetic Parameters of Antibacterial agent 123 in Female CD-1 Mice^[1].</p> <table border="1"> <thead> <tr> <th>pharmacokinetic indices</th> <th>dose i.v., p.o. (mg/kg)</th> <th>AUC₀₋₂₄ (i.v., h·ng/mL)</th> <th>Vd (i.v., mL/kg)</th> <th>CL (i.v., mL/(kg·h))</th> <th>t_{1/2} (i.v., h)</th> <th>AUC₀₋₂₄ (p.o., h·ng/mL)</th> <th>C_{max} (p.o., ng/mL)</th> <th>F (%)</th> </tr> </thead> <tbody> <tr> <td>compound 111</td> <td>0.5, 10</td> <td>(4.20 × 10³) ± 308</td> <td>322 ± 24</td> <td>119 ± 9.2</td> <td>1.88 ± 0.08</td> <td>(4.33 × 10⁴) ± 543</td> <td>(3.10 × 10³) ± 780</td> <td>51.6 ± 5.2</td> </tr> </tbody> </table>	pharmacokinetic indices	dose i.v., p.o. (mg/kg)	AUC ₀₋₂₄ (i.v., h·ng/mL)	Vd (i.v., mL/kg)	CL (i.v., mL/(kg·h))	t _{1/2} (i.v., h)	AUC ₀₋₂₄ (p.o., h·ng/mL)	C _{max} (p.o., ng/mL)	F (%)	compound 111	0.5, 10	(4.20 × 10 ³) ± 308	322 ± 24	119 ± 9.2	1.88 ± 0.08	(4.33 × 10 ⁴) ± 543	(3.10 × 10 ³) ± 780	51.6 ± 5.2
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REFERENCES

[1]. Schultz JR, et al. Identification of 5-(Aryl/Heteroaryl)amino-4-quinolones as Potent Membrane-Disrupting Agents to Combat Antibiotic-Resistant Gram-Positive

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

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