



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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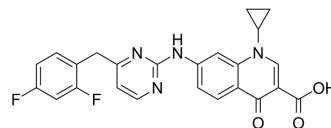
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## Anti-MRSA agent 11

<b>Cat. No.:</b>	HY-163505
<b>CAS No.:</b>	3029704-83-1
<b>Molecular Formula:</b>	C <sub>24</sub> H <sub>18</sub> F <sub>2</sub> N <sub>4</sub> O <sub>3</sub>
<b>Molecular Weight:</b>	448.42
<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>	Anti-MRSA agent 11 suppresses fluoroquinolone-sensitive strain USA500 and -resistant MRSA isolate Mu50 (MIC =0.39 µg/mL). Anti-MRSA agent 11 displays favorable in vivo half-life and safety profiles <sup>[1]</sup> .																																										
<b>In Vitro</b>	<p>Anti-MRSA agent 11 (100 µM; 24 h) is devoid of cytotoxicity in both A549 and HEK-293 cells. Anti-MRSA agent 11 highly selective toxicity toward bacterial cells<sup>[1]</sup>.</p> <p>Anti-MRSA agent 11 (0.25 µg/ml; 15 generation) has long-lasting antibacterial activity for MRSA strain ATCC33591<sup>[1]</sup>.</p> <p>Anti-MRSA agent 11 can pass through the cell membrane of bacteria, especially the outer membrane of Gram-negative bacteria, and enter the interior of bacteria to play a role<sup>[1]</sup>.</p> <p>Anti-MRSA agent 11 inhibits topoisomerase IV of bacteria, thereby interfering with the process of genetic material transfer of bacteria<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>Anti-MRSA agent 11 (0,400, 1000 and 2000 mg/kg, ig; everyday for 8 days) does not affect the body weight and food intake of the mice<sup>[1]</sup>.</p> <p>Pharmacokinetic Analysis in male SD rats<sup>[1]</sup></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Route</th> <th>Dose (mg/kg)</th> <th>AUC<sub>t</sub> (ng•h/mL)</th> <th>AUC<sub>0-∞</sub> (ng•h/mL)</th> <th>T<sub>1/2</sub> (h)</th> <th>T<sub>max</sub> (h)</th> <th>C<sub>max</sub> (ng/mL)</th> <th>C<sub>0</sub> (ng/mL)</th> <th>Cl (L•h/kg)</th> <th>MRT<sub>0-t</sub> (h)</th> <th>MRT<sub>0-∞</sub> (h)</th> <th>F (%)</th> </tr> </thead> <tbody> <tr> <td>i.v.</td> <td>10</td> <td>9060</td> <td>9100</td> <td>4.23</td> <td>/</td> <td>/</td> <td>11800</td> <td>18.5</td> <td>1.01</td> <td>1.20</td> <td>0.9</td> </tr> <tr> <td>p.o.</td> <td>20</td> <td>162</td> <td>171</td> <td>2.16</td> <td>2.67</td> <td>31.0</td> <td>/</td> <td>/</td> <td>3.51</td> <td>4.20</td> <td>/</td> </tr> </tbody> </table> <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>ICR mice (half male and half female, 7 weeks of age)</td> </tr> <tr> <td>Dosage:</td> <td>0,400, 1000 and 2000 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>i.g.</td> </tr> </table>	Route	Dose (mg/kg)	AUC <sub>t</sub> (ng•h/mL)	AUC <sub>0-∞</sub> (ng•h/mL)	T <sub>1/2</sub> (h)	T <sub>max</sub> (h)	C <sub>max</sub> (ng/mL)	C <sub>0</sub> (ng/mL)	Cl (L•h/kg)	MRT <sub>0-t</sub> (h)	MRT <sub>0-∞</sub> (h)	F (%)	i.v.	10	9060	9100	4.23	/	/	11800	18.5	1.01	1.20	0.9	p.o.	20	162	171	2.16	2.67	31.0	/	/	3.51	4.20	/	Animal Model:	ICR mice (half male and half female, 7 weeks of age)	Dosage:	0,400, 1000 and 2000 mg/kg	Administration:	i.g.
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Result:

Increased the body weight of mice in the administration groups gradually.  
Showed no significant difference compared to those in the vehicle control group.  
Sacrificed the mice, no damage to the main organs, including the brain, heart, liver, spleen, lung, and kidneys.

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## REFERENCES

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[1]. Hongxue Dai, et al. Identification of CH<sub>2</sub>-linked quinolone-aminopyrimidine hybrids as potent.

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

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