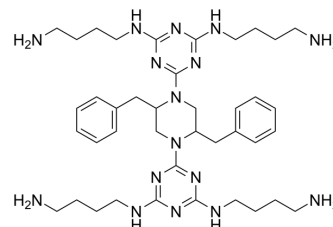


## Antimicrobial agent-6

Cat. No.:	HY-151400
CAS No.:	2978694-10-7
Molecular Formula:	C <sub>40</sub> H <sub>64</sub> N <sub>16</sub>
Molecular Weight:	769.04
Target:	Bacterial
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

Description	Antimicrobial agent-6 (Compound 11) is an antimicrobial agent with a MIC range of 4-8 µg/mL against gram-positive and gram-negative bacteria. Antimicrobial agent-6 also shows anti-inflammatory activity <sup>[1]</sup> .																
In Vitro	<p>Antimicrobial agent-6 (Compound 11) (0-256 µg/mL; 18-24 h) shows antibacterial activity with geometric mean (GM) values of the MICs of 5 µg/mL<sup>[1]</sup>.</p> <p>Antimicrobial agent-6 shows minimum hemolytic concentration (MHC) of &gt;256 µg/mL, the therapeutic index is 102.4<sup>[1]</sup>.</p> <p>Antimicrobial agent-6 (5 or 20 µg/mL; 18 h) effectively inhibits the release and expression of NO and TNF-α from LPS-stimulated RAW 264.7 cells<sup>[1]</sup>.</p> <p>Antimicrobial agent-6 is resistant to various physiological salts, human serum, and proteases<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>E. coli [KCTC 1682], P. aeruginosa [KCTC 1637], S. epidermidis [KCTC 1917] and S. aureus [KCTC1621]</td> </tr> <tr> <td>Concentration:</td> <td>0-256 µg/mL</td> </tr> <tr> <td>Incubation Time:</td> <td>18-24 h</td> </tr> <tr> <td>Result:</td> <td>Inhibited bacterial growth with MICs of 8, 4, 4 and 4 µg/mL against E. coli [KCTC 1682], P. aeruginosa [KCTC 1637], S. epidermidis [KCTC 1917] and S. aureus [KCTC1621], respectively.</td> </tr> </table> <p>RT-PCR<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>LPS-stimulated RAW 264.7 macrophages</td> </tr> <tr> <td>Concentration:</td> <td>5 µg/mL (for NO/iNOS) and 20 µg/mL (for TNF-α)</td> </tr> <tr> <td>Incubation Time:</td> <td>18 h</td> </tr> <tr> <td>Result:</td> <td>Effectively inhibited the production and expression of NO and TNF-α from LPS-stimulated RAW 264.7 cells.</td> </tr> </table>	Cell Line:	E. coli [KCTC 1682], P. aeruginosa [KCTC 1637], S. epidermidis [KCTC 1917] and S. aureus [KCTC1621]	Concentration:	0-256 µg/mL	Incubation Time:	18-24 h	Result:	Inhibited bacterial growth with MICs of 8, 4, 4 and 4 µg/mL against E. coli [KCTC 1682], P. aeruginosa [KCTC 1637], S. epidermidis [KCTC 1917] and S. aureus [KCTC1621], respectively.	Cell Line:	LPS-stimulated RAW 264.7 macrophages	Concentration:	5 µg/mL (for NO/iNOS) and 20 µg/mL (for TNF-α)	Incubation Time:	18 h	Result:	Effectively inhibited the production and expression of NO and TNF-α from LPS-stimulated RAW 264.7 cells.
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## REFERENCES

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[1]. Dinesh Kumar S, et al. Cationic, amphipathic small molecules based on a triazine-piperazine-triazine scaffold as a new class of antimicrobial agents. Eur J Med Chem. 2022 Sep 8;243:114747.

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

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