Antimicrobial agent-6

Cat. No.: HY-151400

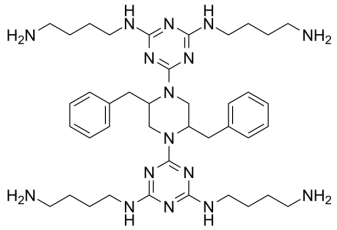
Molecular Formula: $C_{40}H_{64}N_{16}$

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[1].

In Vitro

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[1].

Antimicrobial agent-6 shows minimum hemolytic concentration (MHC) of >256 μg/mL, the therapeutic index is 102.4[1].

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[1].

Antimicrobial agent-6 is resistant to various physiological salts, human serum, and proteases[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

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.

RT-PCR[1]

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.

REFERENCES

[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.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA