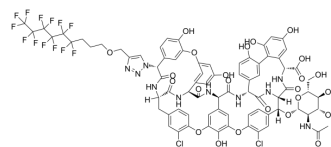


Antimicrobial agent-10

| | |
|--------------------|---|
| Cat. No.: | HY-151497 |
| Molecular Formula: | C ₇₈ H ₆₅ Cl ₂ F ₁₃ N ₁₀ O ₂₄ |
| Molecular Weight: | 1844.29 |
| Target: | SARS-CoV; Bacterial |
| Pathway: | Anti-infection |
| Storage: | Please store the product under the recommended conditions in the Certificate of Analysis. |



BIOLOGICAL ACTIVITY

| | | | | | | | | | |
|-------------------------------------|---|------------|---|----------------|--------------------------|------------------|--|---------|--|
| Description | Antimicrobial agent-10 is a SARS-CoV-2 inhibitor with outstanding antibacterial activity ^[1] . | | | | | | | | |
| IC₅₀ & Target | Bacteria, SARS-CoV-2 ^[1] | | | | | | | | |
| In Vitro | <p>Antimicrobial agent-10 (compound 4) shows inhibitory activity on coronavirus (SARS-CoV-2, HCoV-229E) replication and spike-mediated pseudovirus entry in Vero E6 cells, Calu-3 cells, A549-AT cells, with EC₅₀ values of 13-22 μM^[1].</p> <p>Antimicrobial agent-10 inhibits cathepsin L, 3CL^{Pro} enzyme activity and the ACE2-spike interaction, with EC₅₀ values of 66 μM, 7.6 μM, 9 μM respectively^[1].</p> <p>Antimicrobial agent-10 (0-10 μg/mL approximately) shows activity against diverse species of Gram-positive bacteria including drug-resistant strains^[1].</p> <p>Antimicrobial agent-10 (0-100 μM, 2 h) inhibits SARS-CoV-2 pseudovirus entry in Vero and A549-AT cells^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Viability Assay^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>S. aureus, E. faecalis, E. faecium, S. epidermidis, S. haemolyticus</td> </tr> <tr> <td>Concentration:</td> <td>0-10 μg/mL approximately</td> </tr> <tr> <td>Incubation Time:</td> <td></td> </tr> <tr> <td>Result:</td> <td>Inhibited bacteria activities with MIC values of 0.25-6.8 μg/mL.</td> </tr> </table> | Cell Line: | S. aureus, E. faecalis, E. faecium, S. epidermidis, S. haemolyticus | Concentration: | 0-10 μg/mL approximately | Incubation Time: | | Result: | Inhibited bacteria activities with MIC values of 0.25-6.8 μg/mL. |
| Cell Line: | S. aureus, E. faecalis, E. faecium, S. epidermidis, S. haemolyticus | | | | | | | | |
| Concentration: | 0-10 μg/mL approximately | | | | | | | | |
| Incubation Time: | | | | | | | | | |
| Result: | Inhibited bacteria activities with MIC values of 0.25-6.8 μg/mL. | | | | | | | | |

REFERENCES

[1]. Ilona Berczki, et al. Semisynthetic teicoplanin derivatives with dual antimicrobial activity against SARS-CoV-2 and multiresistant bacteria. Sci Rep. 2022 Sep 26;12(1):16001.

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

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