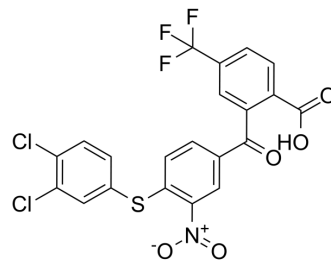


Antibacterial agent 89

Cat. No.:	HY-146722
CAS No.:	2589639-87-0
Molecular Formula:	C ₂₁ H ₁₀ Cl ₂ F ₃ NO ₅ S
Molecular Weight:	516.27
Target:	Bacterial; DNA/RNA Synthesis
Pathway:	Anti-infection; Cell Cycle/DNA Damage
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Antibacterial agent 89 is a potent antibacterial agent. Antibacterial agent 89 shows anti-clostridial activity. Antibacterial agent 89 inhibits the release of cytotoxins and the β'CH-σ interaction. Antibacterial agent 89 disrupts the process of bacterial transcription ^[1] .								
In Vitro	<p>Antibacterial agent 89 (compound 8 e) shows antimicrobial activity for SPNE (<i>Streptococcus pneumoniae</i> (<i>S. pneumoniae</i>)) ATCC 49619, <i>Streptococcus aureus</i> (<i>S. aureus</i>) ATCC 25923, <i>S. aureus</i> ATCC 29213 with MIC of 2, 4, 4 μg/mL, respectively^[1].</p> <p>Antibacterial agent 89 (48 h) shows anti-clostridial activity against clinically important Gram-positive pathogens with MIC of 0-8 μg/mL^[1].</p> <p>Antibacterial agent 89 (48 h) inhibits the release of cytotoxins Toxin A (TcdA) and Toxin B (TcdB) in a dose-dependent manner in <i>C. difficile</i> ATCC 9689, ribotype 002, ribotype 027^[1].</p> <p>Antibacterial agent 89 inhibits the β'CH-σ interaction with an IC₅₀ of 2.12 μM^[1].</p> <p>Antibacterial agent 89 (1, 2, 4 μg/mL; <i>B. subtilis</i>) alters the localization of bacterial transcription complexes^[1].</p> <p>Antibacterial agent 89 (0.5, 0.25 μg/mL) reduces the expression of DNA, RNA, protein levels in <i>S. aureus</i> ATCC 29213 cells^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Western Blot Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td><i>S. aureus</i> ATCC 29213 cells</td> </tr> <tr> <td>Concentration:</td> <td>0.5, 0.25 μg/mL</td> </tr> <tr> <td>Incubation Time:</td> <td></td> </tr> <tr> <td>Result:</td> <td>Reduced the total levels of protein observed in <i>S. aureus</i> ATCC 29213 cells.</td> </tr> </table>	Cell Line:	<i>S. aureus</i> ATCC 29213 cells	Concentration:	0.5, 0.25 μg/mL	Incubation Time:		Result:	Reduced the total levels of protein observed in <i>S. aureus</i> ATCC 29213 cells.
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Concentration:	0.5, 0.25 μg/mL								
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Result:	Reduced the total levels of protein observed in <i>S. aureus</i> ATCC 29213 cells.								

REFERENCES

[1]. Ye J, et al. Benzyl and benzoyl benzoic acid inhibitors of bacterial RNA polymerase-sigma factor interaction. *Eur J Med Chem.* 2020 Dec 15;208:112671.

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

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