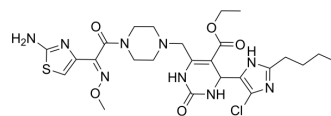


Antibiofilm agent-5

Cat. No.:	HY-161279
Molecular Formula:	C ₂₅ H ₃₄ ClN ₉ O ₅ S
Molecular Weight:	608.11
Target:	Bacterial; Lactate Dehydrogenase; Reactive Oxygen Species
Pathway:	Anti-infection; Metabolic Enzyme/Protease; Immunology/Inflammation; NF-κB
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Antibiofilm agent-5 (compound 6c) is a multitargeting antibacterial agent with potent antibiofilm activity. Antibiofilm agent-5 could induce metabolic dysfunction by deactivating lactate dehydrogenase and promote the accumulation of reactive oxygen species to decrease the reduced glutathione and ultimately cause oxidative damage in bacteria. Antibiofilm agent-5 can be used for the research of refractory biofilm-intensified bacterial infections ^[1] .
In Vitro	Antibiofilm agent-5 (compound 6c) shows better inhibitory activity towards <i>Acinetobacter baumannii</i> and <i>Escherichia coli</i> with MIC values both of 0.0066 mmol/L than norfloxacin (HY-B0132) ^[1] . Antibiofilm agent-5 could insert into DNA to form the supramolecular complex of 6c-DNA and trigger cell death ^[1] . Antibiofilm agent-5 shows a inconspicuous hemolysis effect on human red blood cell and low cytotoxicity on human normal hepatocytes (LO2) and lung epithelial cells (BEAS-2B), as well as no risk of crossing the blood-brain barrier ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Li W, et al. Novel aminothiazoximone-corbelled ethoxycarbonylpyrimidones with antibiofilm activity to conquer Gram-negative bacteria through potential multitargeting effects. *Eur J Med Chem.* 2024 Feb 13;268:116219.

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

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