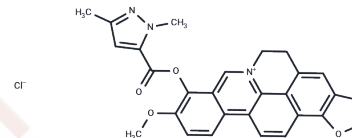


## Anti-MRSA agent 28

### Chemical Properties

CAS No. : 2222727-47-9  
 Formula: C<sub>27</sub>H<sub>22</sub>ClN<sub>3</sub>O<sub>5</sub>  
 Molecular Weight: 503.93  
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year  
 Actual storage temperature shall be subject to the COA.



### Biological Description

Description	Anti-MRSA agent 28 is an antimicrobial compound effective against multidrug-resistant Gram-positive strains, with a minimum inhibitory concentration (MIC) of 0.06-0.125 µg/mL. It targets DNA polymerase III to reduce the amount of genomic DNA, achieving an IC <sub>50</sub> of 3.80 µg/mL. Anti-MRSA agent 28 exhibits potent antibacterial activity and aids in reducing inflammation, making it suitable for use against Gram-positive strains and in treating infectious diseases.
Targets(IC <sub>50</sub> )	Antibacterial, DNA/RNA Synthesis
In vitro	Anti-MRSA agent 28 (Compound 5a) exhibits antibacterial activity against gram-positive strains, including Staphylococcus aureus ATCC 33591 (MIC = 0.125 µg/mL), ATCC 700698 (MIC = 0.125 µg/mL), ATCC 700699 (MIC = 0.06 µg/mL), and ATCC BAA1708 (MIC = 0.125 µg/mL). At concentrations of 0.25 µg/mL to 4 µg/mL over 0 to 24 hours, it shows efficacy against Staphylococcus aureus ATCC 33591. The agent may inhibit genomic DNA dysfunction at 1 µg/mL for 1 hour and effectively influences genomic DNA quantity at 0.5 µg/mL to 4.5 µg/mL. Additionally, Anti-MRSA agent 28 binds DNA Pol-III in a dose-dependent manner, with a K <sub>D</sub> value of 8.45 µM at a range of 6.25 µM to 50 µM, and inhibits the enzyme in Staphylococcus aureus ATCC 33591 at concentrations from 0 µg/mL to 16 µg/mL.
In vivo	Anti-MRSA agent 28 (2% Vaseline; applied once daily for 3 days) significantly reduces bacterial count and systemic inflammation while effectively alleviating necrosis and infiltration and accumulation of neutrophils in infected tissues.

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	1.9844 mL	9.922 mL	19.844 mL
5 mM	0.3969 mL	1.9844 mL	3.9688 mL
10 mM	0.1984 mL	0.9922 mL	1.9844 mL
50 mM	0.0397 mL	0.1984 mL	0.3969 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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