

Antibacterial agent 140 chloride

Chemical Properties

CAS No. :

Formula: C₆H₄Cl₂N₈Ru₂-

Molecular Weight: 1162.1

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	Antibacterial agent 140 chloride, a first-of-its-kind Ru-based AIEgen photosensitizer, shows promise in detecting and treating Gram-positive bacteria (G+). It effectively discriminates against and exterminates G+ by interacting with lipoteichoic acids (LTA), displaying robust antibacterial activity under light irradiation [1].
Targets(IC50)	Others,Antibacterial
In vitro	The antibacterial agent 140 chloride (0.1-5 µg/mL, 1 h) showed dose-dependent dark toxicity against <i>S. aureus</i> , with inhibition ranging from 78% to 0% [1]. Exposure to light for 120 seconds significantly enhanced its efficacy, with nearly complete inhibition of <i>S. aureus</i> growth at very low concentrations [1]. Additionally, over 80% of HeLa cells survived after treatment with antibacterial agent 140 chloride (0.1-5 µg/mL, 1 h), and more than 73% remained viable under light conditions at concentrations ≤32 µM [1].
In vivo	Antibacterial agent 140 chloride (20 µg/mL/50 µL; 1-10 days) significantly reduced the size of <i>Staphylococcus aureus</i> -induced wound infections, with wounds in female Kunming mice nearly fully healed after 7 days.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.8605 mL	4.3026 mL	8.6051 mL
5 mM	0.1721 mL	0.8605 mL	1.721 mL
10 mM	0.0861 mL	0.4303 mL	0.8605 mL
50 mM	0.0172 mL	0.0861 mL	0.1721 mL

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

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