# Antibacterial agent 131

Cat. No.:	HY-152249		
Molecular Formula:	C <sub>24</sub> H <sub>17</sub> ClN <sub>4</sub> OS		
Molecular Weight:	444.94		
Target:	Bacterial; Fungal; Antibiotic		
Pathway:	Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month

# SOLVENT & SOLUBILITY

#### In Vitro DMSO : 62.5 mg/mL (140.47 mM; ultrasonic and warming and heat to 60°C) Mass Solvent 1 mg 5 mg 10 mg Concentration Preparing 1 mM 2.2475 mL 11.2375 mL 22.4749 mL **Stock Solutions** 0.4495 mL 4.4950 mL 5 mM 2.2475 mL 10 mM 0.2247 mL 1.1237 mL 2.2475 mL Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY		
Description	Antibacterial agent 131 is a quinoline derivative. Antibacterial agent 131 has antimicrobial effect. Antibacterial agent 131 destroys the integrity of the fungal cells via blocking ergosterol production <sup>[1]</sup> .	
In Vitro	Antibacterial agent 131 (compound 4m) has antimicrobial activity with MIC <sub>90</sub> values of 9.81 µg/mL for Escherichia coli ATCC 35218, E. coli ATCC 25922, Staphylococcus aureus ATCC 6538, and methicillin-resistant S. aureus (MRSA), respectively <sup>[1]</sup> . Antibacterial agent 131 has anti-candida effect with MIC <sub>90</sub> values of ≤0.06, 0.24, 1.95, and 1.95 µg/mL for Candida krusei ATCC 6258, Candida parapsilosis ATCC 22019, Candida albicans ATCC 24433, and C. glabrata ATCC 90030, respectively <sup>[1]</sup> . Antibacterial agent 131 (24 h) has low cytotoxicity with an IC <sub>50</sub> value of 34.51 µM in NIH/3T3 cells <sup>[1]</sup> . Antibacterial agent 131 (0.06-3.91 µg/mL) inhibits DNA-Gyrase Enzyme against E. coli <sup>[1]</sup> . Antibacterial agent 131 has antifungal activity via blocking ergosterol production <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

## REFERENCES



[1]. Asaf Evrim Evren, et al. Investigation of Novel Quinoline-Thiazole Derivatives as Antimicrobial Agents: In Vitro and In Silico Approaches. ACS Omega. 2022 Dec 29;8(1):1410-1429.

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

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