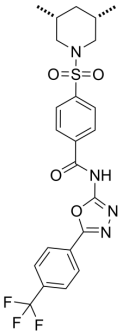
HSGN-94

Cat. No.:	HY-146811
CAS No.:	2570797-85-0
Molecular Formula:	$C_{23}H_{23}F_3N_4O_4S$
Molecular Weight:	508.51
Target:	Bacterial
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	HSGN-94 is a potent antimicrobial agent with lipoteichoic acid (LTA) biosynthesis inhibition. HSGN-94 inhibits drug-resistant Gram-positive bacteria with MIC values of 0.25-2 μg/mL. HSGN-94 inhibits biofilm formation of MRSA and Vancomycin-resistant Enterococci. HSGN-94 also inhibits pro-inflammatory cytokines, exhibits in vivo efficacy in an MRSA murine wound infection model[1].
In Vitro	HSGN-94 (50 μM; 30 min) directly binds to CDP-diacylglycerol-glycerol-3-phosphate 3-phosphatidyltransferase (PgsA)[1]. HSGN-94 (0.25 μg/mL; 2 h) downregulates the expression level of PgsA, an essential protein for phospholipid synthesis in the bacteria S. aureus[1]. HSGN-94 (16, 32, 64, and 128 μg/mL; 2 h) is not toxic to HaCat cells at concentrations up to 64 μg/mL[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	HSGN-94 (2%; external use; twice daily for 5 days) decreases MRSA USA300 in infected wounds of mice and results resolution of inflammation in infection model[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	MRSA murine wound infection model[1]
Dosage:	2%
Administration:	External use; twice daily for 5 days
Result:	Reduced the levels of the pro-inflammatory cytokines, monocyte chemo attractant protein-1 (MCP-1), tumor necrosis factor-α (TNF-α), and interleukin-1 beta (IL-1β) in MRSA USA300 skin lesions.

REFERENCES

[1]. Naclerio GA, et al. Mechanistic Studies and In Vivo Efficacy of an Oxadiazole-Containing Antibiotic. J Med Chem. 2022 May 12;65(9):6612-6630.

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

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA