

MAC-545496

Chemical Properties

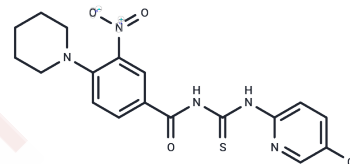
CAS No. : 838810-96-1

Formula: C₁₈H₁₈ClN₅O₃S

Molecular Weight: 419.89

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	MAC-545496 is a glycopeptide-resistance-associated protein R (GraR) inhibitor, is an antivirulence agent.
Targets(IC50)	Antibacterial
In vitro	MAC-545496 could also serve as an antivirulence agent alone; it attenuates MRSA virulence in <i>Galleria mellonella</i> larvae. MAC-545496 inhibits biofilm formation and abrogates intracellular survival in macrophages. Mechanistic characterization revealed MAC-545496 to be a nanomolar inhibitor of GraR, a regulator that responds to cell-envelope stress and is an important virulence factor and determinant of antibiotic resistance.

Solubility Information

Solubility	DMSO: 250 mg/mL (595.39 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3816 mL	11.9079 mL	23.8158 mL
5 mM	0.4763 mL	2.3816 mL	4.7632 mL
10 mM	0.2382 mL	1.1908 mL	2.3816 mL
50 mM	0.0476 mL	0.2382 mL	0.4763 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.

Reference

El-Halfawy OM, et al. Discovery of an antivirulence compound that reverses β -lactam resistance in MRSA. Nat Chem Biol. 2019 Nov 25.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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