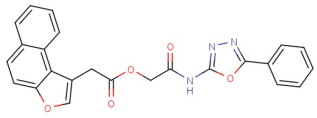
# Data Sheet (Cat.No.T11888)

TargetMol
A DRUG SCREENING EXPERT

LtaS-IN-1

## Chemical Properties



| | |
|---|---|
| CAS No.: | 877950-01-1 |
| Formula: | C24H17N3O5 |
| Molecular Weight: | 427.41 |
| Appearance: | N/A |
| Storage: | 0-4℃ for short term (days to weeks), or -20℃ for long term (months). |

## Biological Description

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|---|---|
| Description | LtaS-IN-1 alone inhibits Enterococcus.spp 28 strains with varying MIC values ranging from 0.5 μg/mL to 64 μg/mL. LtaS-IN-1 combination with antibiotics abolishs multidrug-resistant E. faecium growth almost completely. LtaS-IN-1 is a potent small-molecule inhibitor of Lipoteichoic acid (LTA) synthesis in multidrug-resistant (MDR) E. faecium and by altering the cell wall morphology. |
| Targets($IC_{50}$) | strain E1630: (MIC)0.5 μg/mL<br>strain E1590: 0.5 μg/mL |
| In vitro | LtaS-IN-1 (20 μM) combines with either ampicillin (20 μg/mL), gentamicin (10 μg/mL), linezolid (5 μg/mL), daptomycin (10 μg/mL+50 μg/mL calcium chloride) or vancomycin (20 μg/mL) can inhibit strains E7128 and E7130 growth by 97-100%, while LtaS-IN-1 alone only gives 73% (strain E7128) and 8% (strain E7130) of growth inhibition, respectively[1].LtaS-IN-1 (0-100 μM) inhibits strain E745 growth as a concentration-dependent manner. At the concentration 10 μM leads to an 60% reduction in the final OD600 for this strain. Meanwhile, LtaS-IN-1 does not affect E. faecium growth in control group[1]. LtaS-IN-1 is against Enterococcus spp 28 strains with varying MIC values ranging from 0.5 μg/mL to 64 μg/mL. LtaS-IN-1 inhibits strain E1630 and E1590 with the MIC values of 0.5μg/mL[1]. |

## Solubility Information

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|---|---|
| Solubility | < 1 mg/ml refers to the product slightly soluble or insoluble |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 2.34 mL | 11.698 mL | 23.397 mL |
| 5 mM | 0.468 mL | 2.34 mL | 4.679 mL |
| 10 mM | 0.234 mL | 1.17 mL | 2.34 mL |
| 50 mM | 0.047 mL | 0.234 mL | 0.468 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Paganelli FL, et al. Lipoteichoic acid synthesis inhibition in combination with antibiotics abrogates growth of multidrug-resistant Enterococcus faecium.Int J Antimicrob Agents. 2017 Mar;49(3):355-363.

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Tel:781-999-4286 E-mail:info@targetmol.com Address:36 Washington Street,Wellesley Hills,MA 02481