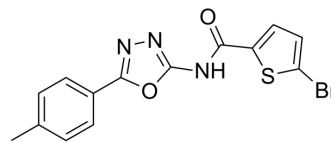


## KKL-10

|                           |   |       |         |
|---------------------------|---|-------|---------|
| <b>Cat. No.:</b>          | HY-101865   |       |         |
| <b>CAS No.:</b>           | 952849-76-2   |       |         |
| <b>Molecular Formula:</b> | C <sub>14</sub> H <sub>10</sub> BrN <sub>3</sub> O <sub>2</sub> S |       |         |
| <b>Molecular Weight:</b>  | 364.22  |       |         |
| <b>Target:</b>            | Bacterial   |       |         |
| <b>Pathway:</b>           | Anti-infection  |       |         |
| <b>Storage:</b>           | Powder  | -20°C | 3 years |
|                           |   | 4°C   | 2 years |
|                           | In solvent  | -80°C | 2 years |
|                           |   | -20°C | 1 year  |



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 2.78 mg/mL (7.63 mM; Need ultrasonic)

| Concentration | Mass      |            |            |
|---------------|-----------|------------|------------|
|               | 1 mg      | 5 mg       | 10 mg      |
| 1 mM          | 2.7456 mL | 13.7280 mL | 27.4559 mL |
| 5 mM          | 0.5491 mL | 2.7456 mL  | 5.4912 mL  |
| 10 mM         | ---       | ---        | ---        |

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

KKL-10 is a small-molecule ribosome rescue inhibitor with broad-spectrum antimicrobial activity against bacteria.

#### In Vitro

The ribosome rescue inhibitor KKL-10 exhibits exceptional antimicrobial activity against both attenuated and fully virulent strains of *F. tularensis*. The minimum inhibitory concentration (MIC) against *F. tularensis* strain LVS and Schu S4 are 0.12 and 0.48 µg/mL, respectively. KKL-10 arrests intracellular growth of *F. tularensis* during all stages of infection. KKL-10 does not affect macrophage viability or function. KKL-10 produces cytotoxic effects of less than 5% at concentrations up to 17.5 µg/mL. The combination of IFN-γ stimulation and KKL-10 activity results in a reduction of the bacterial load by >99.9%. KKL-10 is also able to inhibit growth of *F. tularensis* inside eukaryotic cells and show no toxicity to HepG2 cells<sup>[1]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

[1]. Goralski TD, et al. Inhibitors of Ribosome Rescue Arrest Growth of *Francisella tularensis* at All Stages of Intracellular Replication. *Antimicrob Agents Chemother.* 2016 May 23;60(6):3276-82.

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

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