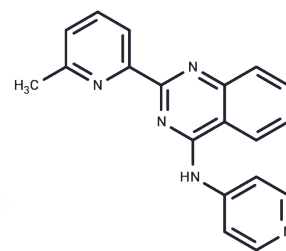


## TGFBR1-IN-2

## Chemical Properties

|                   |   |
|-------------------|---|
| CAS No. :         | 733806-89-8   |
| Formula:          | C <sub>19</sub> H <sub>15</sub> N <sub>5</sub>  |
| Molecular Weight: | 313.36  |
| Storage:          | Powder: -20°C for 3 years   In solvent: -80°C for 1 year<br>Actual storage temperature shall be subject to the COA. |



## Biological Description

|               |   |
|---------------|---|
| Description   | TGFBR1-IN-2 (Compound AQA) is a TGFBR1 inhibitor (KD: 0.01 μM) and antimicrobial agent. It serves as a substrate for cytochrome P450. The compound contains a pyridyl-6-methyl group, essential for inhibiting Mycobacterium tuberculosis, and effectively inhibits non-replicating and persistent strains of this bacterium.                                       |
| Targets(IC50) | Antibacterial,Cytochromes P450,TGF-beta/Smad  |
| In vitro      | TGFBR1-IN-2 exhibits bacteriostatic activity against non-replicating Mycobacterium tuberculosis, with a MIC 90NR of 1 μM, MIC 90 of 20 μM, and MIC 50 of 16 μM. Over 35 days, TGFBR1-IN-2 (2-20 μM) demonstrates inhibitory effects against drug-tolerant microorganisms, including cultures of Mycobacterium tuberculosis-GFP containing rifampicin and isoniazid. |
| In vivo       | TGFBR1-IN-2 (10 mg/kg, p.o.) has a short half-life and low plasma concentration in CD1 mice, with a T 1/2 of 1.8 hours, a C max of 280 ng/mL, and an AUC last of 640 h*ng/mL.   |

## Preparing Stock Solutions

|       | 1mg       | 5mg        | 10mg       |
|-------|-----------|------------|------------|
| 1 mM  | 3.1912 mL | 15.9561 mL | 31.9122 mL |
| 5 mM  | 0.6382 mL | 3.1912 mL  | 6.3824 mL  |
| 10 mM | 0.3191 mL | 1.5956 mL  | 3.1912 mL  |
| 50 mM | 0.0638 mL | 0.3191 mL  | 0.6382 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.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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