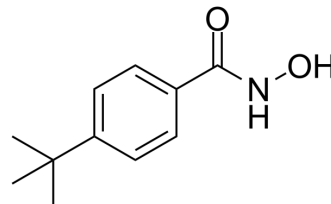


## 4-(tert-Butyl)-benzhydroxamic Acid

|                           |   |       |          |
|---------------------------|---|-------|----------|
| <b>Cat. No.:</b>          | HY-114818                                       |       |          |
| <b>CAS No.:</b>           | 62034-73-5                                      |       |          |
| <b>Molecular Formula:</b> | C <sub>11</sub> H <sub>15</sub> NO <sub>2</sub> |       |          |
| <b>Molecular Weight:</b>  | 193.24  |       |          |
| <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 | 6 months |
|                           |   | -20°C | 1 month  |



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 100 mg/mL (517.49 mM; Need ultrasonic)

| Concentration | Mass      |            |            |
|---------------|-----------|------------|------------|
|               | 1 mg      | 5 mg       | 10 mg      |
| 1 mM          | 5.1749 mL | 25.8746 mL | 51.7491 mL |
| 5 mM          | 1.0350 mL | 5.1749 mL  | 10.3498 mL |
| 10 mM         | 0.5175 mL | 2.5875 mL  | 5.1749 mL  |

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

### BIOLOGICAL ACTIVITY

#### Description

4-(tert-Butyl)-benzhydroxamic Acid is a PqsR antagonist with IC<sub>50</sub>s of 12.5 μM and 23.6 μM for *E. coli* and *P. aeruginosa*, respectively. 4-(tert-Butyl)-benzhydroxamic Acid reduces the production of the virulence factor pyocyanin in *P. aeruginosa* with an IC<sub>50</sub> of 87.2 μM<sup>[1]</sup>.

#### IC<sub>50</sub> & Target

IC<sub>50</sub>: 12.5 μM (PqsR in *E. coli*), 23.6 μM (PqsR in *P. aeruginosa*), 87.2 μM (virulence factor pyocyanin)<sup>[1]</sup>

### REFERENCES

[1]. Klein T, et al. Identification of small-molecule antagonists of the *Pseudomonas aeruginosa* transcriptional regulator PqsR: biophysically guided hit discovery and optimization. *ACS Chem Biol*. 2012 Sep 21;7(9):1496-501.

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

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