# Bobcat339 hydrochloride

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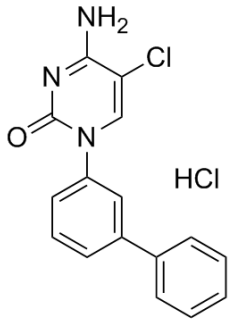
|---|---|
| **Cat. No.:** | HY-111558A |
| **Molecular Formula:** | $C_{16}H_{13}Cl_2N_3O$ |
| **Molecular Weight:** | 334.2 |
| **Target:** | Others |
| **Pathway:** | Others |
| **Storage:** | Please store the product under the recommended conditions in the COA. |




## Solvent & Solubility

**In Vitro**

**DMSO : 130 mg/mL (388.99 mM; Need ultrasonic)**

| Preparing Stock Solutions | Concentration \ Solvent \ Mass | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | **1 mM** | 2.9922 mL | 14.9611 mL | 29.9222 mL |
| | **5 mM** | 0.5984 mL | 2.9922 mL | 5.9844 mL |
| | **10 mM** | 0.2992 mL | 1.4961 mL | 2.9922 mL |

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

**In Vivo**

1. Add each solvent one by one: **10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline**
   Solubility: ≥ 2.17 mg/mL (6.49 mM); Clear solution
2. Add each solvent one by one: **10% DMSO >> 90% corn oil**
   Solubility: ≥ 2.17 mg/mL (6.49 mM); Clear solution
3. Add each solvent one by one: **10% DMSO >> 90% (20% SBE-β-CD in saline)**
   Solubility: ≥ 2.17 mg/mL (6.49 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

Bobcat339 hydrochloride is a cytosine-based **TET enzyme** inhibitor with **$IC_{50}$** of 33 μM (**TET1**) and 73 μM (**TET2**). It is useful to the field of epigenetics and serves as a starting point for new therapeutics that target DNA methylation and gene transcription.

**$IC_{50}$ & Target**

IC50: 33 μM (TET1), 73 μM (TET1)[1]

## REFERENCES

[1]. Chua GNL, et al. Cytosine-Based TET Enzyme Inhibitors. ACS Med Chem Lett. 2019 Jan 31;10(2):180-185.

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

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