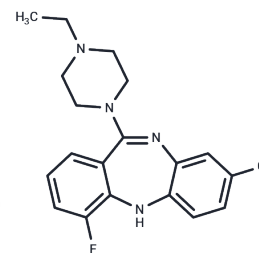


JHU37160

Chemical Properties

CAS No. : 2369979-68-8
 Formula: C₁₉H₂₀ClFN₄
 Molecular Weight: 358.84
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

| | |
|---------------|---|
| Description | JHU37160 (JHU 37160) is a Designer Receptors Exclusively Activated by Designer Drug (DREADD) agonist with K_i of 1.9 nM and 3.6 nM for human muscarinic acetylcholine M3 receptors (hM3Dq) and hM4Di in vitro, respectively. And EC_{50} values are 18.5 nM and 0.2 nM for hM3Dq and hM4Di in fluorescent and BRET-based assays in HEK-293 cells, respectively. |
| Targets(IC50) | AChR |
| In vitro | JHU 37160 is a potent agonist of DREADD with high potency and efficacy in fluorescent and BRET-based assays in HEK-293 cells, whereas no responses are observed in untransfected HEK-293 cells |
| In vivo | JHU 37160 exhibits high in vivo DREADD potency. It exhibits selective [³ H]clozapine displacement from DREADDs in brain tissue from WT and D1-DREADD mice |

Solubility Information

| | |
|---------------------|---|
| Solubility | Ethanol: 72 mg/mL (200.65 mM), Sonication is recommended. DMSO: 72 mg/mL (200.65 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (5.57 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i> |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|------------|------------|
| 1 mM | 2.7868 mL | 13.9338 mL | 27.8676 mL |
| 5 mM | 0.5574 mL | 2.7868 mL | 5.5735 mL |
| 10 mM | 0.2787 mL | 1.3934 mL | 2.7868 mL |
| 50 mM | 0.0557 mL | 0.2787 mL | 0.5574 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.

Reference

Bonaventura J , Eldridge M , Hu F , et al. High-potency ligands for DREADD imaging and activation in rodents and monkeys[J]. Nature Communications, 2019, 10(1).

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