

RTI-13951-33

Chemical Properties

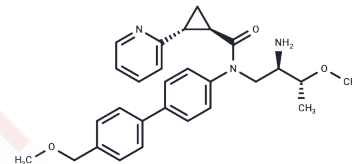
CAS No. : 2244884-08-8

Formula: C₂₈H₃₃N₃O₃

Molecular Weight: 459.58

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

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|----------------------------|--|
| Description | RTI-13951-33 is an effective and brain-penetrant GPR88 agonist (EC ₅₀ : 25 nM, in GPR88 cAMP functional assay). |
| Targets(IC ₅₀) | GPCR |
| In vitro | RTI-13951-33 poorly inhibits SERT (IC ₅₀ : 25.1 ± 2.7 μM). RTI-13951-33 elevates [35S]-GTPγS binding (EC ₅₀ : 535 nM) in mouse striatal membranes but not in membranes from GPR88 KO mice. RTI-13951-33 has weak affinities at kappa opioid receptor (KOR; K _i , 2.29 μM), vesicular monoamine transporter (VMAT; K _i , 4.23 μM), and moderate affinity at serotonin transporter (SERT; K _i , 0.75 μM) [1]. |
| In vivo | RTI-13951-33 (10 and 20 mg/kg, i.p.) dose-dependently reduces alcohol lever responses in a rat model of alcohol self-administration. RTI-13951-33 (10 mg/kg, i.p.) has sufficient brain penetration, with t _{1/2} of 48 min and 87 min in rat plasma and brain [1]. |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|------------|-----------|
| 1 mM | 2.1759 mL | 10.8795 mL | 21.759 mL |
| 5 mM | 0.4352 mL | 2.1759 mL | 4.3518 mL |
| 10 mM | 0.2176 mL | 1.0879 mL | 2.1759 mL |
| 50 mM | 0.0435 mL | 0.2176 mL | 0.4352 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

Jin C, et al. Discovery of a Potent, Selective, and Brain-Penetrant Small Molecule that Activates the Orphan Receptor GPR88 and Reduces Alcohol Intake. J Med Chem. 2018 Aug 9;61(15):6748-6758.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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