VU0364770 hydrochloride

Cat. No.: HY-100588A

CAS No.: 1414842-70-8

Molecular Formula: $C_{12}H_{10}Cl_2N_2O$

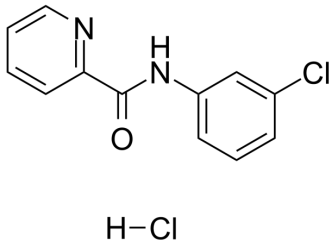
Molecular Weight: 269.13

Target: mGluR

Pathway: GPCR/G Protein; Neuronal Signaling

Storage: 4°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (371.57 mM; Need ultrasonic)

H_2O : < 0.1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.7157 mL	18.5784 mL	37.1568 mL
5 mM	0.7431 mL	3.7157 mL	7.4314 mL
10 mM	0.3716 mL	1.8578 mL	3.7157 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: ≥ 5 mg/mL (18.58 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 5 mg/mL (18.58 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

VU0364770 hydrochloride is a selective and potent positive allosteric modulator (PAM) of mGlu4. VU0346770 hydrochloride exhibits EC_{50}s of 290 nM and 1.1 μM at rat mGlu4 and human mGlu4 receptor, respectively. VU0364770 hydrochloride exhibits antagonist activity at mGlu5 with a potency of 17.9 μM and PAM activity at mGlu6 with a potency of 6.8 μM. VU0364770 hydrochloride also possesses activity at MAO with K_i values of 8.5 and 0.72 μM for human MAO-A and human MAO-B, respectively[1].

IC_{50} & Target				
	Rat $mGlu_4$	Human $mGlu_4$	$mGlu_6$	$mGlu_5$
	290 nM (EC50)	1.1 μM (EC50)	6.8 μM (EC50)	17.9 μM (EC50)

REFERENCES

[1]. Jones CK, et al. The metabotropic glutamate receptor 4-positive allosteric modulator VU0364770 produces efficacy alone and in combination with L-DOPA or an adenosine 2A antagonist in preclinical rodent models of Parkinson's disease. J Pharmacol Exp Ther.

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