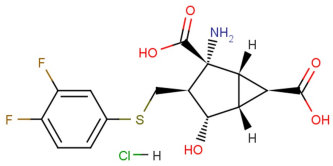
Data Sheet (Cat.No.T11911)

TargetMol
A DRUG SCREENING EXPERT

LY3020371 hydrochloride

Chemical Properties



CAS No.:	1377615-44-5
Formula:	C15H16ClF2NO5S
Molecular Weight:	395.81
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	LY3020371 hydrochloride exerts an antidepressant-like signature in vivo. LY3020371 hydrochloride is a potent, selective metabotropic glutamate 2/3 receptor (mGlu2/3) antagonist with Ki of 5.3 and 2.5 nM, potently blocks cAMP formation with IC50 of 16.2 nM.
Targets(IC_{50})	mGluR2: 5.3 nM (ki) mGluR3: 2.5 nM (ki)
In vitro	LY3020371 hydrochloride (LY3020371.HCl) (0.1 nM-100 μM; 1 hours) potently blocks mGlu2/3 agonist (DCG-IV)-inhibited, forskolin-stimulated cAMP formation (IC50=16.2 nM), an effect that was similarly observed in hmGlu3-expressing cells (IC50=6.21 nM)[1]. LY3020371 hydrochloride (LY3020371.HCl) blocks agonist-suppressed spontaneous Ca2+ oscillations (IC50=34 nM) and in an intact hippocampal slice preparation (IC50=46 nM)[1].LY3020371 hydrochloride (LY3020371.HCl) displaces binding of the mGlu2/3 agonist ligand [3H]-459477 with high affinity (hmGlu2 Ki=5.26 nM; hmGlu3 Ki=2.50 nM)[1].
In vivo	LY3020371 hydrochloride (LY3020371) (intraperitoneal injection; 3 mg/kg, 10 mg/kg; 2 hours) has clear wake promoting effects, resulting in a large reduction in NREM sleep in the Wistar rats during the light phase[3].LY3020371 hydrochloride (Intravenous injection; 3-15 mg/kg) in rats leads to cerebrospinal fluid drug levels that are expected to effectively block mGlu2/3receptors[1].

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.526 mL	12.632 mL	25.265 mL
5 mM	0.505 mL	2.526 mL	5.053 mL
10 mM	0.253 mL	1.263 mL	2.526 mL
50 mM	0.051 mL	0.253 mL	0.505 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Witkin JM, et al. In vitro pharmacological and rat pharmacokinetic characterization of LY3020371, a potent and selective mGlu2/3 receptor antagonist. Neuropharmacology. 2017 Mar 15;115:100-114.
2. Witkin JM, et al. Preclinical predictors that the orthosteric mGlu2/3 receptor antagonist LY3020371 will not engender ketamine-associated neurotoxic, motor, cognitive, subjective, or abuse-liability-related effects. Pharmacol Biochem Behav. 2017 Apr;155:43-55.
3. Wood CM, et al. Investigating the role of mGluR2 versus mGluR3 in antipsychotic-like effects, sleep-wake architecture and network oscillatory activity using novel Han Wistar rats lacking mGluR2 expression. Neuropharmacology. 2018 Sep 15;140:246-259.

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