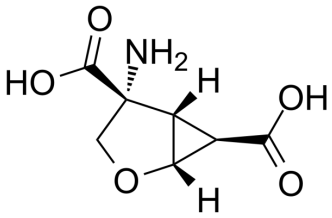
LY379268

Cat. No.:	HY-103558
CAS No.:	191471-52-0
Molecular Formula:	$C_7H_9NO_5$
Molecular Weight:	187.15
Target:	mGluR
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

0.1 M NaOH : 200 mg/mL (1068.66 mM; ultrasonic and adjust pH to 8 with NaOH)
H_2O : 2 mg/mL (10.69 mM; ultrasonic and adjust pH to 10 with NaOH)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	5.3433 mL	26.7165 mL	53.4331 mL
	5 mM	1.0687 mL	5.3433 mL	10.6866 mL
	10 mM	0.5343 mL	2.6717 mL	5.3433 mL

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

In Vivo

1. Add each solvent one by one: PBS
Solubility: 25 mg/mL (133.58 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

LY379268 is a potent, selective and brain-penetrant mGlu2/3R agonist with EC_{50} values of 2.69 nM (mGlu2) and 4.48 nM (mGlu3). LY379268 has no activity on human mGlu 1a, 4a, 5a or 7a receptors. LY379268 has antioxidant and neuroprotective effects[1][2].

IC_{50} & Target				
	hmGluR2	hmGluR3	hmGluR2	hmGluR3
	2.69 nM (EC50)	4.48 nM (EC50)	14.1 nM (Ki)	5.8 nM (Ki)

In Vitro

Treatment of 9-weeks (9w) astrocytes with LY379268 (0.1 μM; 24-48 hours) results in an increase in mGlu3R and Nrf2 protein levels and SOD activity, and decreases mitochondrial ROS levels and apoptosis. mGlu3R activation in aged astrocytes also preventS hippocampal neuronal death induced by Aβ1-42 in co-culture assays. Activation of mGlu3R in aged astrocytes haS an anti-oxidant effect and protected hippocampal neurons against Aβ-induced neurotoxicity[3].

	MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	For LY379268, when a 3 mg/kg dose is given prior to an intraplantar injection of carrageenan, the inflammatory hyperalgesia that developed is significantly delayed, without affecting the inflammation of the paw[2]. In a model of mouse tail withdrawal to warm water, LY379268 (12 mg/kg; i.p.), given before a subcutaneous tail injection of capsaicin, reduces the subsequent neurogenic hyperalgesia[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. J A Monn, et al. Synthesis, pharmacological characterization, and molecular modeling of heterobicyclic amino acids related to (+)-2-aminobicyclo[3.1.0] hexane-2,6-dicarboxylic acid (LY354740): identification of two new potent, selective, and systemically active agonists for group II metabotropic glutamate receptors. J Med Chem. 1999 Mar 25;42(6):1027-40.

[2]. E F Sharpe, et al. Systemic pre-treatment with a group II mGlu agonist, LY379268, reduces hyperalgesia in vivo. Br J Pharmacol. 2002 Mar;135(5):1255-62.

[3]. Juan Turati, et al. Antioxidant and neuroprotective effects of mGlu3 receptor activation on astrocytes aged in vitro. Neurochem Int. 2020 Nov;140:104837.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA