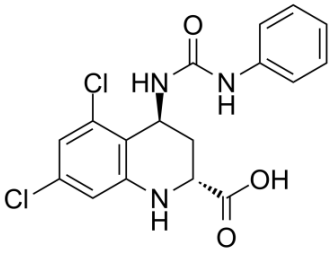
L-689560

Cat. No.:	HY-101178
CAS No.:	139051-78-8
Molecular Formula:	$C_{17}H_{15}Cl_2N_3O_3$
Molecular Weight:	380.23
Target:	iGluR
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	L-689560 is a potent N-methyl-D-aspartate (NMDA) receptor antagonist at the GluN1 glycine binding site. L-689560 is widely used as a radiolabeled ligand in binding studies and used for study the roles of NMDA receptors in normal neurological processes as well as in diseases[1][2].
In Vitro	L-689560 is a 2-carboxytetrahydroquinoline antagonist[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	L-689560 (1 mg/kg, ip) significantly reduces the neuroprotective effect of glycine after glycine receptors and the channel activity of NMDA receptors (NMDARs) are suppressed. L-689560 blocks glycine-induced increase of Akt phosphorylation in the MCAO model[1] MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Adult male Sprague-Dawley (SD) rats middle cerebral artery occlusion (MCAO) model[1]
Dosage:	1 mg/kg
Administration:	IP
Result:	Significantly reduced the neuroprotective effect of glycine after glycine receptors.

REFERENCES

[1]. Juan Chen, et al. A non-ionotropic activity of NMDA receptors contributes to glycine-induced neuroprotection in cerebral ischemia-reperfusion injury. 15 June 2017

[2]. Kvist T, et al. Crystal structure and pharmacological characterization of a novel N-methyl-D-aspartate (NMDA) receptor antagonist at the GluN1 glycine binding site. J Biol Chem. 2013 Nov 15;288(46):33124-35.

Caution: Product has not been fully validated for medical applications. For research use only.

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