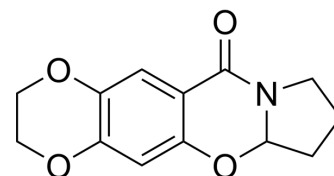


CX614

Cat. No.:	HY-110175
CAS No.:	191744-13-5
Molecular Formula:	C ₁₃ H ₁₃ NO ₄
Molecular Weight:	247.25
Target:	iGluR
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



SOLVENT & SOLUBILITY

In Vivo	1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 1 mg/mL (4.04 mM); Clear solution
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BIOLOGICAL ACTIVITY

Description	CX614 is a positive variant modulator of AMPA receptors that enhances excitatory postsynaptic potentials (amplitude and duration) by blocking and slowing the inactivation of responses to glutamate and automatically evokes excitatory postsynaptic currents in neuronal cultures. CX614 can be used in the study of psychiatric disorders such as depression ^{[1][2]} .
In Vitro	CX614 (100 μM) promotes glutamate apparent affinity and increases glutamate-evoked inward currents, increasing the peak glutamate response at 3.5 and 10 mM in HEK293 cells ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	CX614 (1 or 10 mg/kg, i.p., twice a day) significantly increases BDNF mRNA in hippocampus and cortex of P5 mice, confirming upregulation of hippocampal BDNF mRNA levels by positive allosteric modulators of AMPA receptors ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Wei Dai, et al. The Impact and Mechanism of a Novel Allosteric AMPA Receptor Modulator LCX001 on Protection Against Respiratory Depression in Rodents. *Front Pharmacol.* 2019 Feb 19;10:105.

[2]. Eleni Dicou, et al. Positive allosteric modulators of AMPA receptors are neuroprotective against lesions induced by an NMDA agonist in neonatal mouse brain. *Brain Res.* 2003 Apr 25;970(1-2):221-5.

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

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