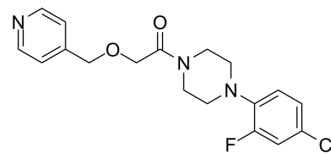


mGluR5 modulator 1

Cat. No.:	HY-141832
CAS No.:	1261171-52-1
Molecular Formula:	C ₁₈ H ₁₉ ClFN ₃ O ₂
Molecular Weight:	363.81
Target:	mGluR
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	mGluR5 modulator 1 is a mGluR5 positive allosteric modulator. mGluR5 modulator 1 can be used for the research of the schizophrenia and cognitive impairments ^[1] .
IC₅₀ & Target	mGluR5 ^[1]
In Vitro	<p>mGluR5 modulator 1 (compound 2c; 0.1-0.00001 nM) potentiates the L-glutamate and DHPG responses to the same maximum response as the orthosteric agonists alone in the Ca²⁺ mobilization and IP1 accumulation assays^[1].</p> <p>mGluR5 modulator 1 (0.1-0.00001 nM) potentiates the L-glutamate and DHPG responses above the orthosteric agonist maximal response in the ERK1/2 phosphorylation assay^[1].</p> <p>mGluR5 modulator 1 induces mGlu5 internalization in the absence of add orthosteric agonist or antagonist^[1].</p> <p>mGluR5 modulator 1 potentiates the responses induced by both orthosteric agonists (L-glutamate or DHPG) in Ca²⁺ mobilization (pK_B=5.4 and 5.3, respectively), inositol monophosphate accumulation, and ERK1/2 phosphorylation signaling (pK_B=5.88 and 5.4, respectively) assays in HEK293A-mGlu₅-low cells^[1].</p> <p>mGluR5 modulator 1 enhances the effect of DHPG in cortical neurons with pEC₅₀ values of 6.32 and 6.33 in Ca²⁺ mobilization and inositol monophosphate (IP1) accumulation assays^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

[1]. Arsova A, et al. Positive Allosteric Modulators of Metabotropic Glutamate Receptor 5 as Tool Compounds to Study Signaling Bias. *Mol Pharmacol*. 2021 May;99(5):328-341.

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

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