YM-298198 hydrochloride

Cat. No.: HY-103568

CAS No.: 1216398-09-2

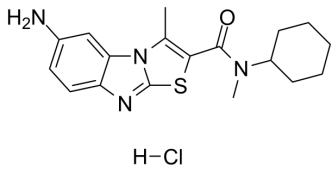
Molecular Formula: $C_{18}H_{23}ClN_4OS$

Molecular Weight: 378.92

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	YM-298198 hydrochloride is a high-affinity, selective, orally active, and non-competitive antagonist of metabotropic glutamate receptor type 1 (mGluR1). YM-298198 hydrochloride can be used for the research of neurological disorders[1].
IC_{50} & Target	mGluR 1
In Vitro	YM-298198 hydrochloride shows a high affinity for mGluR1 with a K_i of 19 nM for rat mGluR1-NIH membranes[1]. YM-298198 hydrochloride inhibits glutamate-induced inositol phosphate production in mGluR1-NIH3T3 cells, with an IC_{50} of 16 nM[1]. YM-298198 hydrochloride shows neither agonistic nor antagonistic activity on mGluR2, 3, 4a, 6, or 7b up to 10 μM[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	YM-298198 hydrochloride (30 mg/kg; p.o.) shows a significant analgesic effect in streptozotocin-induced hyperalgesic mice[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male ICR mice[1]
Dosage:	30 mg/kg
Administration:	Oral administration
Result:	Prolonged nociceptive response latency in streptozotocin (200 mg/kg)-induced hyperalgesic mice.

REFERENCES

[1]. Kohara, A, et al. Radioligand Binding Properties and Pharmacological Characterization of 6-Amino-N-cyclohexyl-N,3-dimethylthiazolo[3,2-a]benzimidazole-2-carboxamide (YM-298198), a High-Affinity, Selective, and Noncompetitive Antagonist of Metabotropic Glutamate Receptor Type 1. J Pharmacol Exp Ther. 2005 Oct;315(1):163-9.

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

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