VU0155041 sodium

Cat. No.: HY-14417B

CAS No.: 1259372-69-4

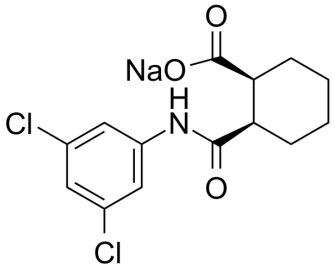
Molecular Formula: $C_{14}H_{14}Cl_2NNaO_3$

Molecular Weight: 338.16

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	VU0155041 sodium is a potent, selective positive allosteric modulator (PAM) of mGluR4, with EC_{50}s of 798 nM and 693 nM for human and rat mGluR4, respectively. VU0155041 has potential for the research of Parkinson's disease (PD)[1].
IC_{50} & Target	mGluR4 693 nM (EC50)
In Vitro	VU0155041 (10 μM) does not affect NMDA receptor currents in striatal medium spiny neurons[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	VU0155041 (31 nmol, 93 nmol; i.c.v.) reverses catalepsy induced by the dopamine D2 receptor antagonist Haloperidol (1.5 mg/kg, i.p.) in rats[1]. VU0155041 (93 nmol, 316 nmol; i.c.v.) reverses Reserpine (HY-N0480) -induced akinesia in rats[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Third ventricle cannulated (TVC) Male Sprague-Dawley rats (225-255 g)[1]
Dosage:	31, 93 nmol
Administration:	I.c.v. injection after the the 1.5 mg/kg of haloperidol treatment 2 h
Result:	Decreased the cataleptic effects of haloperidol, and the effects still presented 30 min after infusion.

REFERENCES

[1]. Niswender CM, et, al. Discovery, characterization, and antiparkinsonian effect of novel positive allosteric modulators of metabotropic glutamate receptor 4. Mol Pharmacol. 2008 Nov; 74(5): 1345-58.

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

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