Bifeprunox mesylate

Cat. No.: HY-14547A

CAS No.: 350992-13-1

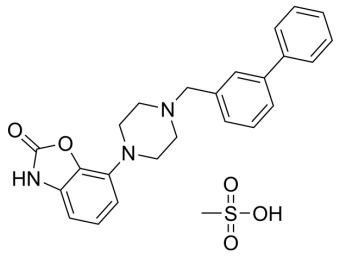
Molecular Formula: $C_{25}H_{27}N_3O_5S$

Molecular Weight: 481.56

Target: Dopamine Receptor; 5-HT Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage: 4°C, sealed storage, away from moisture and light
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 8.6 mg/mL (17.86 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.0766 mL	10.3829 mL	20.7658 mL
	5 mM	0.4153 mL	2.0766 mL	4.1532 mL
	10 mM	0.2077 mL	1.0383 mL	2.0766 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Bifeprunox mesylate is a potent dopamine D2-like and 5-HT1A receptor partial agonist with pK_is of 7.19 and 8.83 for cortex 5-HT1A and striatum D2, and a pEC_{50} of 6.37 for hippocampus 5-HT1A, respectively. Bifeprunox mesylate is an antipsychotic for the research of schizophrenia[1][2].

In Vitro

Bifeprunox has a pK_i of 8 at h5-HT1A receptors, with an E_{max} of 70%[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Bifeprunox (0.001-2.5 mg/kg) reduces marble burying in mice[2].
Bifeprunox (4-250 μg/kg) influences nicotine-seeking behaviour in response to drug-associated stimuli in rats[3].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Newman-Tancredi A, et al. Novel antipsychotics activate recombinant human and native rat serotonin 5-HT1A receptors: affinity, efficacy and potential implications for treatment of schizophrenia. Int J Neuropsychopharmacol. 2005 Sep;8(3):341-56.

[2]. Bruins Slot LA, et al. Effects of antipsychotics and reference monoaminergic ligands on marble burying behavior in mice. Behav Pharmacol. 2008 Mar;19(2):145-52.

[3]. Di Clemente A, et al. Bifeprunox: a partial agonist at dopamine D2 and serotonin 1A receptors, influences nicotine-seeking behaviour in response to drug-associated stimuli in rats. Addict Biol. 2012 Mar;17(2):274-86.

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