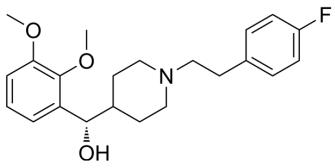
(S)-Volinanserin

Cat. No.:	HY-14940A
CAS No.:	175673-57-1
Molecular Formula:	$C_{22}H_{28}FNO_3$
Molecular Weight:	373.46
Target:	5-HT Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	(S)-Volinanserin is an isform of Volinanserin (HY-14940). Volinanserin is a potent and selective antagonist of 5-HT_2 receptor, with a K_i of 0.36 nM, and shows 300-fold selectivity for 5-HT_2 receptor over 5-HT_{1c}, alpha-1 and DA D_2 receptors. Volinanserin has antipsychotic activity.
IC_{50} & Target	Ki: 0.36 nM (5-HT_2 receptor)[1]
In Vitro	Volinanserin (MDL 100907) is a potent antagonist at the 5-HT_2 receptor, with a K_i of 0.36 nM, and shows 300-fold selectivity for 5-HT_2 receptor over 5-HT_{1c} receptor, alpha-1 and DA D_2 receptors. Volinanserin has antipsychotic activity[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Volinanserin (MDL 100907; 0.008-2.0 mg/kg, i.p.) significantly decreases d-amphetamine-stimulated locomotor activity in mice, with an ED_{50} of 0.3 mg/kg, but shows no obvious reduction in the base-line locomotor activity in mice. Volinanserin produces atalepsy with an ED_{50} of 10-50 mg/kg in rats. Volinanserin does not reduces apomorphine-induced stereotypies or produces catalepsy in rats[1]. Volinanserin (M100907) combined with MK-801 significantly decreases reinforcers at 1 μg/kg, but dose-dependently (10, 100 μg/kg) antagonizes the disruptive effect of MK-801 in rats via i.p. administration. Volinanserin (6.25 μg/kg) enhances the antidepressant-like action of Desipramine (HY-B1272A) in rats performing under a DRL 72-s schedule, and elevates the antidepressant-like effect of Tranylcypromine (HY-17447)[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Ultrasonics. 2023 Aug 7, 107132.
- Psychopharmacology. 2023 Apr 18.
- Addict Biol. 2020 May 26;e12926.
- Behav Brain Res. 2022 Sep 26;114127.
- Authorea. September 19, 2022.

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REFERENCES

[1]. Sorensen SM, et al. Characterization of the 5-HT2 receptor antagonist MDL 100907 as a putative atypical antipsychotic: behavioral, electrophysiological and neurochemical studies. J Pharmacol Exp Ther. 1993 Aug;266(2):684-91.

[2]. Ardayfio PA, et al. The 5-hydroxytryptamine2A receptor antagonist R-(+)-alpha-(2,3-dimethoxyphenyl)-1-[2-(4-fluorophenyl)ethyl-4-piperidinemethanol (M100907) attenuates impulsivity after both drug-induced disruption (dizocilpine) and enhancement (antidepressant drugs) of differential-reinforcement-of-low-rate 72-s behavior in the rat. J Pharmacol Exp Ther. 2008 Dec;327(3):891-7.

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