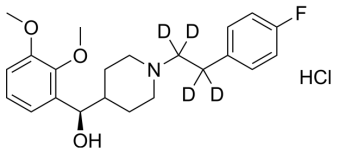
Volinanserin-d_4 hydrochloride

Cat. No.:	HY-14940S
CAS No.:	1217617-73-6
Molecular Formula:	$C_{22}H_{25}D_4ClFNO_3$
Molecular Weight:	413.95
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	Volinanserin-d_4 (hydrochloride) is the deuterium labeled Volinanserin hydrochlorid. Volinanserin is a potent and selective antagonist of 5-HT2 receptor, with a Ki of 0.36 nM, and shows 300-fold selectivity for 5-HT2 receptor over 5-HT1c, alpha-1 and DA D2 receptors. Volinanserin has antipsychotic activity[1][2].
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

[2]. 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.

[3]. 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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