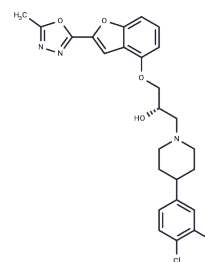


Wf-516

Chemical Properties

CAS No. : 310392-94-0
 Formula: C₂₅H₂₅Cl₂N₃O₄
 Molecular Weight: 502.39
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
 Actual storage temperature shall be subject to the COA.



Biological Description

Description	Wf-516 is a 5-HT reuptake inhibitor (K _i : 5 nM and 40 nM for 5-HT _{1A} receptor and 5-HT _{2A} receptor in humans, respectively), and with potent antidepressant activity.
Targets(IC ₅₀)	5-HT Receptor, Serotonin Transporter
In vitro	WF-516 exhibits high affinity for 5-HT _{1A} receptors in the hippocampus and raphe nucleus of rats (K _i of 8.1 nM and 7.9 nM, respectively) [2].
In vivo	Wf-516 (0.5 mg/kg, i.v.) does not alter the firing activity of 5-HT neurons but significantly inhibits the effect of 8-OHDPAT (a 5-HT autoreceptor agonist) by 70%. The suppression of DRN firing activity by LSD experienced a significant fourfold rightward shift in Wf-516 pretreated rats (ED ₅₀ = 32.4 ± 1.0 µg/kg) compared to controls (ED ₅₀ = 7.5 ± 1.2 µg/kg). Successive intravenous doses of Wf-516 (up to 10 mg/kg) prolong the effect of microiontophoretically applied 5-HT, achieving statistical significance at 7.5 mg/kg, with RT ₅₀ values increased by 53% and 75% at 7.5 mg/kg and 10 mg/kg, respectively. Oral administration of 30 mg/kg Wf-516 to 5,7-DHT-treated rats resulted in a significant decrease in hippocampal BPND, with no further decrease in the grooved nuclei; ED ₅₀ values were 5.3 mg/kg in the hippocampus and 4.2 mg/kg in the grooved nuclei.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9905 mL	9.9524 mL	19.9049 mL
5 mM	0.3981 mL	1.9905 mL	3.981 mL
10 mM	0.199 mL	0.9952 mL	1.9905 mL
50 mM	0.0398 mL	0.199 mL	0.3981 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

El Mansari M, et al. In vivo electrophysiological assessment of the putative antidepressant Wf-516 in the rat raphe dorsalis, locus coeruleus and hippocampus. *Naunyn Schmiedeberg's Arch Pharmacol.* 2008 Jan;376(5):351-61. Epub 2007 Nov 30.

Saijo T, et al. Presynaptic selectivity of a ligand for serotonin 1A receptors revealed by in vivo PET assays of rat brain. *PLoS One.* 2012;7(8):e42589.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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