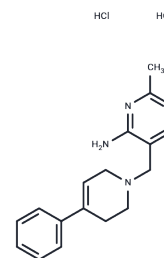


Ro 10-5824 dihydrochloride

Chemical Properties

CAS No. :	189744-94-3
Formula:	C ₁₇ H ₂₂ Cl ₂ N ₄
Molecular Weight:	353.29
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	Ro 10-5824 dihydrochloride is a selective partial agonist of the dopamine D4 receptor, with a K_i of 5.2 nM.
Targets(IC50)	Dopamine Receptor
In vitro	RO-10-5824 exhibits high affinity binding ($K_i=5.2\pm 0.9$ nM (n=3)), 250-fold selectivity over human D3R, and >1000-fold selectivity for D4 versus human D2, D1, and D5 receptors. It stimulates 35S-GTP γ S binding (EC ₅₀ : 205 \pm 67 nM) (n=7) with a maximal induction of 36 \pm 4% above basal level [2].
In vivo	The success rate in the ORD task increased by Ro 10-5824 (3 mg/kg). At doses of 1 and 3 mg/kg, in the frontal cortex, Ro 10-5824 increases baseline gamma band activity. RO-10-5824 (10.0 mg/kg) does not increase center entries in the open field in a single 60-min session without the novel object present, nor does it increase overall transitions in the initial experiment with C57 mice[2].

Solubility Information

Solubility	H ₂ O: 60 mg/mL (169.83 mM), Sonication is recommended. DMSO: 8.33 mg/mL (23.58 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8305 mL	14.1527 mL	28.3054 mL
5 mM	0.5661 mL	2.8305 mL	5.6611 mL
10 mM	0.2831 mL	1.4153 mL	2.8305 mL
50 mM	0.0566 mL	0.2831 mL	0.5661 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

Nakazawa S, et al. Behavioral and neurophysiological effects of Ro 10-5824, a dopamine D4 receptor partial agonist, in common marmosets. *Psychopharmacology (Berl)*. 2015 Sep;232(17):3287-95.

Powell SB, et al. RO-10-5824 is a selective dopamine D4 receptor agonist that increases novel object exploration in C57 mice. *Neuropharmacology*. 2003 Mar;44(4):473-81.

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