



上海源叶生物科技有限公司
Shanghai yuanye Bio-Technology Co., Ltd
电话: 021-61312973 传真: 021-55068248
网址: www.shyuanye.com
邮箱: shyysw@sina.com

产品名称: **Ro 10-5824 (dihydrochloride)**
产品别名: **Ro 10-5824 dihydrochloride**

生物活性:					
Description	Ro 10-5824 dihydrochloride is a selective dopamine D4 receptor partial agonist, with K_i of 5.2 nM.				
IC ₅₀ & Target	K _i : 5.2 nM (dopamine D4 receptor) ^[2]				
In Vitro	RO-10-5824 shows high affinity binding with a K_i =5.2±0.9 nM (n=3), 250-fold selectivity vs human D3R, and >1000 fold selectivity for D4 vs human D2, D1, and D5 receptors. RO-10-5824 stimulates ³⁵ S-GTPγS binding with an EC ₅₀ value of 205±67 nM (n=7) and maximal induction at 36±4% above basal level ^[2] .				
In Vivo	Ro 10-5824 (3 mg/kg) increases the success rate in the ORD task. At doses of 1 and 3 mg/kg, Ro 10-5824 increases baseline gamma band activity in the frontal cortex. Ro 10-5824 has no effect on spontaneous locomotion ^[1] . 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] .				
Solvent&Solubility	<i>In Vitro:</i> H₂O : ≥ 60 mg/mL (169.83 mM) * "≥" means soluble, but saturation unknown.				
	Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
		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
	*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液; 一旦配成溶液, 请分装保存, 避免反复冻融造成的产品失效。 储备液的保存方式和期限: -80°C, 6 months; -20°C, 1 month。 -80°C 储存时, 请在 6 个月内使用, -20°C 储存时, 请在 1 个月内使用。				
References	[1]. 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. [2]. 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.				
实验参考:					
Animal Administration	In the experiment, 39 C57 and 40 DBA mice are tested over a three-day period. On days 1 and 2, mice are placed into the VT for 60 min and locomotor behavior is recorded. On the third day, mice are placed into the VT chamber for 60 min. Following the 60-min period, mice are removed from the chambers and administered 0, 1.0, 3.0, or 10.0 mg/kg of RO-10-5824 (n=9-11 per group). Mice are assigned to drug group pseudo-randomly, with each dose being represented in a cage of four mice. A novel paper cup measuring 9.5 cm in height and 7.5 cm in diameter at the rim is placed upside down in the center of each open field and secured to the floor with tape. Mice are returned to the VT 10 min following injection and tested for an additional 30 min. [2]				
	[1]. Nakazawa S, et al. Behavioral and neurophysiological effects of Ro 10-5824, a dopamine D4				



上海源叶生物科技有限公司
Shanghai yuanye Bio-Technology Co., Ltd
电话: 021-61312973 传真: 021-55068248
网址: www.shyuanye.com
邮箱: shyysw@sina.com

References

receptor partial agonist, in common marmosets. *Psychopharmacology (Berl)*. 2015 Sep;232(17):3287-95.

[2]. 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.



源叶生物