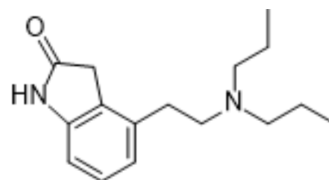


Ropinirole

Cat. No.:	HY-B0623
CAS No.:	91374-21-9
Molecular Formula:	C ₁₆ H ₂₄ N ₂ O
Molecular Weight:	260.37
Target:	Dopamine Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Ropinirole (SKF 101468) is an orally active, potent D ₃ /D ₂ receptor agonist with a K _i of 29 nM for D ₂ receptor. Ropinirole has pEC ₅₀ s of 7.4, 8.4 and 6.8 for hD ₂ , hD ₃ and hD ₄ receptors, respectively. Ropinirole has no affinity for the D ₁ receptors. Ropinirole has the potential for Parkinson's disease ^{[1][2]} .			
IC₅₀ & Target	D ₂ Receptor 29 nM (K _i)	hD ₂ Receptor 7.4 (pEC ₅₀)	hD ₃ Receptor 8.4 (pEC ₅₀)	hD _{4.4} Receptor 6.8 (pEC ₅₀)
In Vitro	Ropinirole has affinity for D ₃ receptors of 10-20 fold higher than the D ₂ and D ₄ receptors. Ropinirole is weakly active at alpha 2-adrenoceptors and 5-HT ₂ receptors but inactive at 5-HT ₁ , benzodiazepine and gamma-aminobutyric acid receptors or alpha 1 and beta-adrenoceptors ^{[1][2]} . MCE has not independently confirmed the accuracy of these methods. They are for reference only.			
In Vivo	Ropinirole (0.1-10 mg/kg; i.p.) decreases intracranial self-stimulation (ICSS) thresholds and induces anxiolytic- and antidepressive-like effects without affecting motor activity or spatial memory ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.			

REFERENCES

- [1]. Eden, R.J., et al., Preclinical pharmacology of ropinirole (SK&F 101468-A) a novel dopamine D₂ agonist. *Pharmacol Biochem Behav*, 1991. 38(1): p. 147-54.
- [2]. Mavrikaki M, et al. Ropinirole regulates emotionality and neuronal activity markers in the limbic forebrain. *Int J Neuropsychopharmacol*. 2014 Dec;17(12):1981-93.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA