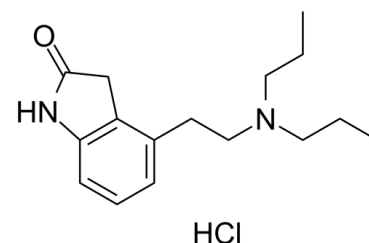


Data Sheet

Product Name:	Ropinirole (hydrochloride)
Cat. No.:	CS-2864
CAS No.:	91374-20-8
Molecular Formula:	C ₁₆ H ₂₅ ClN ₂ O
Molecular Weight:	296.84
Target:	Dopamine Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Solubility:	DMSO : 17 mg/mL (57.27 mM; Need ultrasonic and warming)



BIOLOGICAL ACTIVITY:

Ropinirole hydrochloride is a potent D₃/D₂ receptor agonist with a K_i of 29 nM for D₂ receptor. Ropinirole hydrochloride has pEC₅₀s of 7.4, 8.4 and 6.8 for hD₂, hD₃ and hD₄ receptors, respectively. Ropinirole hydrochloride has no affinity for the D₁ receptors. Ropinirole hydrochloride has the potential for Parkinson's disease^{[1][2]}. IC₅₀ & Target: Ki: D₃ and 29 nM (D₂)^[1] **In Vitro:** Ropinirole hydrochloride has affinity for D₃ receptors of 10-20 fold higher than the D₂ and D₄ receptors. Ropinirole hydrochloride is weakly active at alpha 2-adrenoceptors and 5-HT₂ receptors but inactive at 5-HT₁, benzodiazepine and gamma-aminobutyric acid receptors or alpha 1 and beta-adrenoceptors^{[1][2]}. **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].

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.

CAIndexNames:

2H-Indol-2-one, 4-[2-(dipropylamino)ethyl]-1,3-dihydro- hydrochloride

SMILES:

O=C1NC2=C(C(CCN(CCC)CCC)=CC=C2)C1.Cl

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

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