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# Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand


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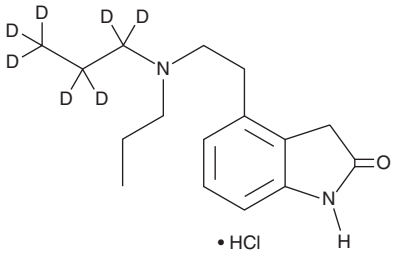
# PRODUCT INFORMATION

## Ropinirole-$d_7$ (hydrochloride)

*Item No. 31689*

| | |
|---|---|
| **CAS Registry No.:** | 1261396-31-9 |
| **Formal Name:** | 4-(2-(propyl(propyl-$d_7$)amino)ethyl)indolin-2-one, monohydrochloride |
| **Synonym:** | SKF 101468A-$d_7$ |
| **MF:** | $C_{16}H_{17}D_7N_2O \bullet HCl$ |
| **FW:** | 303.9 |
| **Chemical Purity:** | ≥95% (Ropinirole) |
| **Deuterium Incorporation:** | ≥99% deuterated forms ($d_1$-$d_7$); ≤1% $d_0$ |
| **Supplied as:** | A solid |
| **Storage:** | -20°C |
| **Stability:** | ≥4 years |




*Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.*

### Laboratory Procedures

Ropinirole-$d_7$ (hydrochloride) is intended for use as an internal standard for the quantification of ropinirole (Item No. 23871) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Ropinirole-$d_7$ (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the ropinirole-$d_7$ (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Ropinirole-$d_7$ (hydrochloride) is soluble in a 1:1 solution of acetonitrile:methanol. Ropinirole-$d_7$ (hydrochloride) is also soluble in DMSO.

### Description

Ropinirole is a dopamine $D_2$ receptor agonist that induces [$^{35}$S]GTPγS binding in CHO cells expressing the human receptor ($EC_{50}$ = 304 nM).[1] It is selective for dopamine $D_2$ over $D_1$ receptors ($K_i$s = 29 and >100,000 nM, respectively), as well as a panel of adrenergic, serotonin (5-HT), benzodiazepine, and GABA receptors ($IC_{50}$s = >9,000 nM for all).[2] Ropinirole reduces spontaneous locomotor activity in mice at doses less than 50 mg/kg but increases it at a dose of 100 mg/kg. It also induces contralateral asymmetry in 6-OHDA-lesioned mice. Ropinirole (0.01-1 mg/kg) reverses locomotor deficits and restores interest in novel stimuli in a marmoset model of Parkinson's disease induced by MPTP. Formulations containing ropinirole have been used in the treatment of Parkinson's disease motor dysfunction.

### References


1. Ghosh, B., Antonio, T., Reith, M.E.A., *et al.* Discovery of 4-(4-(2-((5-hydroxy-1,2,3,4-tetrahydronaphthalen-2-yl)(propyl)amino)ethyl)piperazin-1-yl)quinolin-8-ol and its analogues as highly potent dopamine D2/D3 agonists and as iron chelator: in vivo activity indicates potential application in symptomatic and neuroprotective therapy for Parkinson's disease. *J. Med. Chem.* **53(5)**, 2114-2125 (2010).
2. Eden, R.J., Costall, B., Domeney, A.M., *et al.* Preclinical pharmacology of ropinirole (SK&F 101468-A) a novel dopamine $D_2$ agonist. *Pharmacol. Biochem. Behav.* **38(1)**, 147-154 (1991).





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