Ropinirole-d3 hydrochloride

Cat. No.: HY-B0623AS2

CAS No.: 1329611-00-8

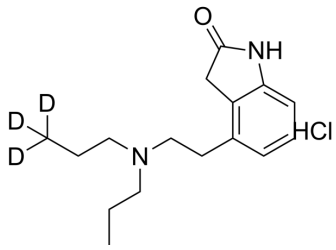
Molecular Formula: $C_{16}H_{22}D_3ClN_2O$

Molecular Weight: 299.85

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-d_3 (hydrochloride) is the deuterium labeled Ropinirole hydrochloride[1]. Ropinirole (SKF 101468) hydrochloride is an orally active, potent D3/D2 receptor agonist with a Ki 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[2][3].
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-216.

[2]. 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.

[3]. Mavrikaki M, et al. Ropinirole regulates emotionality and neuronal activity markers in the limbic forebrain. Int J Neuropsychopharmacol. 2014 Dec17(12):1981-93.

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