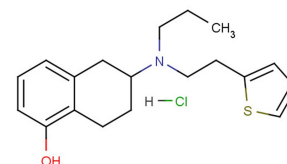


(Rac)-Rotigotine hydrochloride

## Chemical Properties

CAS No.:	102120-99-0
Formula:	C <sub>19</sub> H <sub>26</sub> ClNOS
Molecular Weight:	351.93
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).



## Biological Description

Description	(Rac)-Rotigotine hydrochloride is a racemate of Rotigotine. Rotigotine is a full agonist of dopamine receptor, a partial the 5-HT1A receptor agonist.
Targets(IC <sub>50</sub> )	Dopamine receptor: None
In vitro	In functional studies, Rotigotine behaves as full agonist at all dopamine receptors but notably the potency for stimulation of D1 receptors is similar to that for D2 and D3 receptors (pEC <sub>50</sub> respectively: 9.0, 9.4-8.6, 9.7)[1]. Rotigotine (10 μM) decreases the number of THir neurons by 40% in primary mesencephalic cell culture. Rotigotine (0.01 μM) slightly protects dopaminergic neurons against MPP <sup>+</sup> toxicity, significantly protects dopaminergic neurons against rotenone-induced cell death, and significantly inhibits ROS production by rotenone[4]. .

## Solubility Information

Solubility	DMSO: 50 mg/mL (142.07 mM) ( < 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.841 mL	14.207 mL	28.415 mL
5 mM	0.568 mL	2.841 mL	5.683 mL
10 mM	0.284 mL	1.421 mL	2.841 mL
50 mM	0.057 mL	0.284 mL	0.568 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Wood M, et al. Rotigotine is a potent agonist at dopamine D1 receptors as well as at dopamine D2 and D3 receptors. *Br J Pharmacol.* 2015 Feb;172(4):1124-35.
2. Scheller D, et al. The in vitro receptor profile of rotigotine: a new agent for the treatment of Parkinson's disease. *Naunyn Schmiedebergs Arch Pharmacol.* 2009 Jan;379(1):73-86.
3. Fenu S, et al. In vivo dopamine agonist properties of rotigotine: Role of D1 and D2 receptors. *Eur J Pharmacol.* 2016 Oct 5;788:183-91.
4. Radad K, et al. Neuroprotective effect of rotigotine against complex I inhibitors, MPP+ and rotenone, in primary mesencephalic cell culture. *Folia Neuropathol.* 2014;52(2):179-86.

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