

# rac-Rotigotine (Hydrochloride)

Catalog No: tcsc0925



## Available Sizes

**Size:** 10mg

**Size:** 50mg

**Size:** 100mg



## Specifications

**CAS No:**

102120-99-0

**Formula:**

$C_{19}H_{26}ClNO_2S$

**Pathway:**

GPCR/G Protein;Neuronal Signaling

**Target:**

Dopamine Receptor;Dopamine Receptor

**Purity / Grade:**

>98%

**Solubility:**

DMSO :  $\geq 50$  mg/mL (142.07 mM)

**Observed Molecular Weight:**

351.93

## Product Description

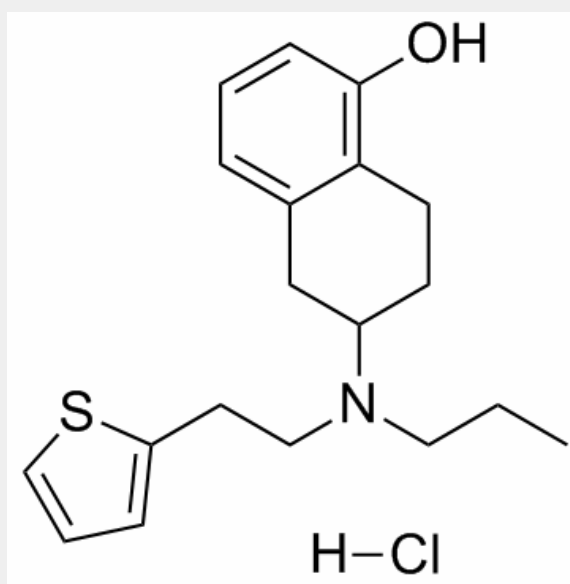
rac-Rotigotine Hcl is a high potency and selectivity agonist for D-2 receptor with  $K_i$  of 0.69 nM.

IC50 Value: 0.69 nM( $K_i$ )

Target: D-2 receptor

in vitro: rac-Rotigotine showed high potency ( $K_i = 0.69$  nM) and selectivity for D-2 receptors as compared to its potency and selectivity at various other neuronal receptors ( $K_i$  in nM): D-1 (678) dopamine,  $\alpha$  1-(534) and  $\alpha$  2-(195) adrenoceptor, 51-(6940) and 52-(5900) serotonin and muscarine (2660). Very low activity ( $K_i$  greater than  $10^{-5}$  M) was seen at the beta-adrenoceptor, A1-adenosine, GABAA and benzodiazepine receptors. Furthermore, rac-Rotigotine inhibited the calcium-dependent release of [3H]dopamine ( $IC_{50}$ : 4 nM) and [3H]acetylcholine ( $IC_{50}$ : 6.3 nM) from rabbit striatal slices in the nanomolar range. These effects of rac-Rotigotine were mediated through activation of D-2 dopamine autoreceptors and D-2 dopamine heteroreceptors, respectively.

in vivo: Presynaptic dopaminergic activity in vivo was measurable as an inhibition of the locomotor activity of mice, and in this model rac-Rotigotine was more effective than apomorphine. Moreover, the effect of rac-Rotigotine could be antagonized by sulpiride but not by yohimbine. rac-Rotigotine was equipotent with apomorphine in inducing circling behaviour in 6-OHDA-lesioned rats. rac-Rotigotine had almost no serotonergic activity in vivo.



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