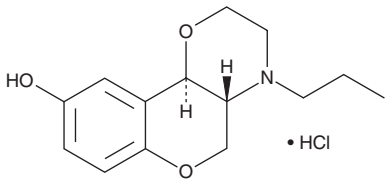
PRODUCT INFORMATION

(+)-PD 128907 (hydrochloride)

Item No. 21235

CAS Registry No.:	300576-59-4
Formal Name:	3,4,4aR,10bR-tetrahydro-4-propyl-2H,5H-[1]benzopyrano[4,3-b]-1,4-oxazin-9-ol, monohydrochloride
MF:	$C_{14}H_{19}NO_3$ • HCl
FW:	285.8
Purity:	≥98%
UV/Vis.:	λ_{max}: 228, 297 nm
Supplied as:	A crystalline 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

(+)-PD 128907 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the (+)-PD 128907 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. (+)-PD 128907 (hydrochloride) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of (+)-PD 128907 (hydrochloride) in these solvents is approximately 15 and 10 mg/ml, respectively. (+)-PD 128907 (hydrochloride) is slightly soluble in ethanol.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of (+)-PD 128907 (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of (+)-PD 128907 (hydrochloride) in PBS, pH 7.2, is approximately 0.5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

(+)-PD 128907 is a potent agonist of the dopamine 3 (D_3) receptor (K_i = 1 nM).[1,2] It shows selectivity for D_3 over D_2 and D_4 receptors (K_is = 1.2 and 7 µM, respectively).[1] Low doses of (+)-PD 128907 (13 µg/kg, s.c.) reduce spontaneous locomotor activity in rats.[3] It blocks stereotypy induced by the NMDA receptor antagonist (+)-MK-801 (Item No. 10009019) in mice.[4] (+)-PD 128907 is used in animal models to study the role of the D_3 receptor in nervous system disorders, such as schizophrenia, Parkinson's disease, and depression.[5,6]

References

1. Akunne, H.C., Towers, P., Ellis, G.J., *et al. Life Sci.* **57(15)**, 1401-1410 (1995).
2. Pugsley, T.A., Davis, M.D., Akunne, H.C., *et al. J. Pharmacol. Exp. Ther.* **275(3)**, 1355-1366 (1995).
3. Bristow, L.J., Cook, G.P., Gay, J.C., *et al. Neuropharmacology* **35(3)**, 285-294 (1996).
4. Witkin, J., Gasior, M., Acri, J., *et al. Eur. J. Pharmacol.* **347(2-3)**, R1-R3 (1998).
5. Carcinella, S., Drui, G., Boulet, S., *et al. Transl. Psychiatry* **4(e401)** (2014).
6. Gil-Mast, S., Kortagere, S., Kota, K., *et al. ACS Chem. Neurosci.* **4(6)**, 940-951 (2013).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM