

PD128907 HCl

## Chemical Properties

CAS No. : 112960-16-4

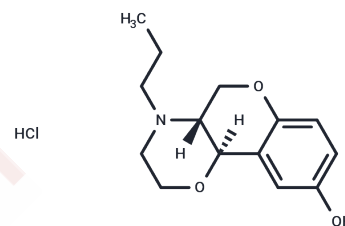
Formula: C<sub>14</sub>H<sub>20</sub>ClNO<sub>3</sub>

Molecular Weight: 285.77

Store under nitrogen

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	PD128907 HCl is a potent and selective dopamine D3 receptor agonist, with EC <sub>50</sub> of 0.64 nM, exhibits 53-fold selectivity over dopamine D2 receptor.
Targets(IC <sub>50</sub> )	Dopamine Receptor
In vitro	PD128907 HCl is a potent and selective dopamine D3 receptor agonist, with EC <sub>50</sub> of 0.64 nM, exhibits 53-fold selectivity over dopamine D2 receptor. [1] When using [ <sup>3</sup> H] spiperone as the radioligand in CHOK1-cells, PD 128907 exhibits about a 1000-fold selectivity for human D3 receptors (K <sub>i</sub> , 1 nM) versus human D2 receptors (K <sub>i</sub> , 1183 nM) and a 10000-fold selectivity versus human D4receptors (K <sub>i</sub> , 7000 nM) [2] PD 128907 is used for studying the role of these receptors in the brain, in roles such as inhibitory autoreceptors that act to limit further dopamine release.[3]
In vivo	PD128907 HCl is active in reducing DA synthesis both in normal and γ-butyrolactone (GBL) treated rats. [4] PD128907 HCl (3 mg/kg) reduces toxicity from cocaine overdose, completely prevented the convulsant and lethal effects of cocaine. [5] The protection occurs through a D3-linked mechanism and that protection is extended to seizure kindling. [6]

## Solubility Information

Solubility	Ethanol: <1 mg/mL, H <sub>2</sub> O: 46 mg/mL (160.97 mM),Sonication is recommended. DMSO: 10 mg/mL (34.99 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	3.4993 mL	17.4966 mL	34.9932 mL
5 mM	0.6999 mL	3.4993 mL	6.9986 mL
10 mM	0.3499 mL	1.7497 mL	3.4993 mL
50 mM	0.070 mL	0.3499 mL	0.6999 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

- Witkin JM, et al. *J Pharmacol Exp Ther*, 2004, 308(3):957-64.
- Sautel F, et al. *Neuroreport*, 1995, 6(2), 329-332.
- Akunne HC, et al. *Life Sci*, 1995, 57(15), 1401-1410.
- Koeltzow TE, et al. *J Neurosci*, 1998, 18(6), 2231-2238.
- Pugsley TA, et al. *J Pharmacol Exp Ther*, 1995, 275(3), 1355-1366.

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