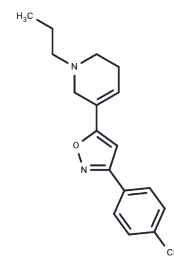


PD 144418

Chemical Properties

CAS No. : 154130-99-1
 Formula: C₁₈H₂₂N₂O
 Molecular Weight: 282.38
 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	PD 144418 displays potential antipsychotic activity. PD 144418 is a high affinity, potent and selective sigma 1 (σ_1) receptor ligand (K_i : 0.08 nM and 1377 nM for σ_1 and σ_2 respectively). It shows devoid of any significant affinity for other receptors, ion channels, and enzymes.
Targets(IC50)	Sigma receptor
In vitro	PD 144418 enhances the reduction in 5-hydroxytryptophan caused by Haloperidol in the mesolimbic region, but by itself has no effect in 5-HT and dopamine (DA) synthesis. PD 144418 reverses the N-methyl-D-aspartate (NMDA)-induced increase in cyclic GMP (cGMP) in rat cerebellar slices without affecting the basal levels, showing that σ_1 sites may be important in the regulation of glutamine-induced actions [1].
In vivo	PD 144418 has ED ₅₀ values is 7.0 mg/kg i.p. PD 144418 (10 mg/kg; intraperitoneal injection; male CD-1 mice) treatment antagonizes Mescaline-induced scratching at doses that did not alter spontaneous motor activity [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.5413 mL	17.7066 mL	35.4133 mL
5 mM	0.7083 mL	3.5413 mL	7.0827 mL
10 mM	0.3541 mL	1.7707 mL	3.5413 mL
50 mM	0.0708 mL	0.3541 mL	0.7083 mL

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

Akunne HC, et al. The pharmacology of the novel and selective sigma ligand, PD 144418. Neuropharmacology. 1997 Jan;36(1):51-62.

Lever JR, et al. Relationship between cerebral sigma-1 receptor occupancy and attenuation of cocaine's motor stimulatory effects in mice by PD144418. J Pharmacol Exp Ther. 2014 Oct;351(1):153-63.

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