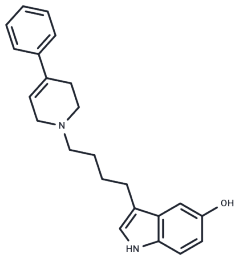
Data Sheet (Cat.No.T26126)

TargetMol

Roxindole

Chemical Properties



CAS No. : 112192-04-8

Formula: C23H26N2O

Molecular Weight: 346.47

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	Roxindole (EMD 49980) is a selective dopamine autoreceptor and 5-HT1A dual agonist and inhibitor of 5-hydroxytryptamine (5-HT) uptake with antipsychotic and antidepressant activity.Roxindole can be used to study Parkinson's and neurodivergence.
Targets(IC50)	5-HT Receptor,Dopamine Receptor,Serotonin Transporter
In vitro	Roxindole has high affinity for hD3 as well as hD2 (short isomer) and hD4 (4-repeat isomer) receptors (pKi values of 8.93, 8.55 and 8.23, respectively). In addition, it had a high affinity for the hS-HT1A receptor (pKi = 9.42), but a low affinity for the 5-HT1B and 5-HT1D receptors (pKi values of 6.00 and 7.05, respectively). [1]
In vivo	Roxindole（EMD 49980） inhibited apomorphine-induced climbing behavior in mice and stereotyped behavior in rats with ED50 of 1.4 mg/kg s.c. and 0.65 mg/kg s.c., respectively, and also inhibited conditioned avoidance responses in rats (ED50 = 1. 5 mg/kg s.c) [2];In the paradigm of co-treatment with haloperidol (1 mg/kg per day, orally), Roxindole（EMD 49980）(10 mg/kg per day, orally) did not alter the behavioral hypersensitivity measured after the drug washout phase as compared with the effect of haloperidol alone; if administration of Roxindole（EMD 49980）(10 mg/kg, i.v.) after the drug washout phase induced only weak stereotyped behaviors in haloperidol-hypersensitized rats, Roxindole（EMD 49980） did not induce either desensitization of the presynaptic or supersensitivity of the postsynaptic dopamine D2 receptor[3]; Roxindole (EMD 49980) (1, 3, 10 mg/kg; s.c) inhibits both effects of 8-OH-DPAT (flattened body and forepaw stamping) in normal rats (male Wistar 200-350g) [5].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8863 mL	14.4313 mL	28.8625 mL
5 mM	0.5773 mL	2.8863 mL	5.7725 mL
10 mM	0.2886 mL	1.4431 mL	2.8863 mL
50 mM	0.0577 mL	0.2886 mL	0.5773 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

Newman-Tancredi A, et al.. Actions of roxindole at recombinant human dopamine D2, D3 and D4 and serotonin 5-HT1A, 5-HT1B and 5-HT1D receptors. Naunyn Schmiedebergs Arch Pharmacol. 1999 Jun;359(6):447-53.
Maj J, et al. Roxindole, a potential antidepressant. I. Effect on the dopamine system. J Neural Transm (Vienna). 1996;103(5):627-41.
Seyfried CA, et al.Sensitivity of dopamine D2 receptors following long-term treatment with roxindole. Eur J Pharmacol. 1994 May 12;257(1-2):67-72.
Gründer G, et al.The neuroendocrinological profile of roxindole, a dopamine autoreceptor agonist, in schizophrenic patients. Psychopharmacology (Berl). 1995 Feb;117(4):472-8.
Maj J,et al. Roxindole, a dopamine autoreceptor agonist with a potential antidepressant activity. II. Effects on the 5-hydroxytryptamine system. Pharmacopsychiatry. 1997 Mar;30(2):55-61.

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