Naxagolide

Cat. No.: HY-108237

CAS No.: 88058-88-2

Molecular Formula: $C_{15}H_{21}NO_2$

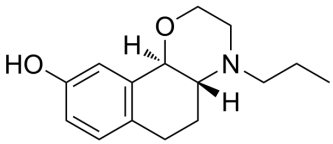
Molecular Weight: 247.33

Target: Dopamine Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 200 mg/mL (808.64 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	4.0432 mL	20.2159 mL	40.4318 mL
5 mM	0.8086 mL	4.0432 mL	8.0864 mL
10 mM	0.4043 mL	2.0216 mL	4.0432 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Naxagolide ((+)-PHNO; Dopazinol) is a potent dopamine D2 (Dopamine Receptor) agonist. Naxagolide has the potential for the research of parkinson's disease (PD)[1][2].

IC_{50} & Target

D_2 Receptor

In Vitro

In vitro, Naxagolide ((+)-PHNO) inhibits binding of [^{3}H]apomorphine (IC_{50} = 23 nM) or [^{3}H]spiperone (IC_{50} = 55 nM) to rat striatal membranes[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

In mice, Naxagolide ((+)-PHNO) produces hypothermia (13 μg/kg i.p.) and postural asymmetry in the unilaterally caudectomized animal (4 μg/kg i.p.)[1].

In the rat, Naxagolide ((+)-PHNO) produces stereotypy (10 μg/kg i.p.) and contralateral turning in 6-hydroxydopamine-lesioned animals (5 μg/kg i.p.) that lasted 1 to 3 hr[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. G E Martin, et al. Pharmacologic profile of a novel potent direct-acting dopamine agonist, (+)-4-propyl-9-hydroxynaphthoxazine [(+)-PHNO]. J Pharmacol Exp Ther. 1984 Sep;230(3):569-76.

[2]. E F Domino, et al. Relative potency and efficacy of some dopamine agonists with varying selectivities for D1 and D2 receptors in MPTP-induced hemiparkinsonian monkeys. J Pharmacol Exp Ther. 1993 Jun;265(3):1387-91.

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