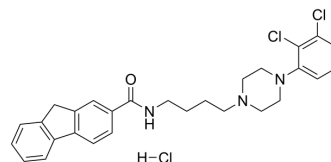


NGB 2904 hydrochloride

Cat. No.:	HY-12697A
CAS No.:	189061-11-8
Molecular Formula:	C ₂₈ H ₃₀ Cl ₃ N ₃ O
Molecular Weight:	530.92
Target:	Dopamine Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	NGB 2904 hydrochloride is a potent, selective, orally active and brain-penetrated antagonist of dopamine D ₃ receptor, with a K _i of 1.4 nM. NGB 2904 hydrochloride shows selectivity for D ₃ over D ₂ , 5-HT ₂ , α ₁ , D ₄ , D ₁ and D ₅ receptors (K _i s=217, 223, 642, >5000, >10000 and >10000 nM, respectively). NGB 2904 hydrochloride antagonizes Quinpirole-stimulated mitogenesis ^[1] [2].
IC₅₀ & Target	D ₃ Receptor 1.4 (K _i)
In Vitro	NGB 2904 antagonizes Quinpirole (100 nM)-stimulated mitogenesis, with an IC ₅₀ of 5.0 nM ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	NGB 2904 (26 µg/kg; a single s.c.) enhances amphetamine (26 mg/kg)-stimulated locomotion in wild-type mice ^[3] . NGB 2904 (0.026 µg-1 mg/kg; a single s.c. or once daily for 7 d) stimulates spontaneous locomotion in wild-type mice ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Yuan J, et, al. NGB 2904 and NGB 2849: two highly selective dopamine D₃ receptor antagonists. *Bioorg Med Chem Lett*. 1998 Oct 6;8(19):2715-8.
- [2]. Xi ZX, et, al. The novel dopamine D₃ receptor antagonist NGB 2904 inhibits cocaine's rewarding effects and cocaine-induced reinstatement of drug-seeking behavior in rats. *Neuropsychopharmacology*. 2006 Jul;31(7):1393-405.
- [3]. Pritchard LM, et, al. The dopamine D₃ receptor antagonist NGB 2904 increases spontaneous and amphetamine-stimulated locomotion. *Pharmacol Biochem Behav*. 2007 Apr;86(4):718-26.

Caution: Product has not been fully validated for medical applications. For research use only.

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