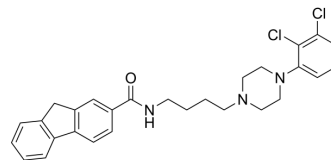


## NGB 2904

Cat. No.:	HY-12697
CAS No.:	189060-98-8
Molecular Formula:	C <sub>28</sub> H <sub>29</sub> Cl <sub>2</sub> N <sub>3</sub> O
Molecular Weight:	494.46
Target:	Dopamine Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

#### In Vitro

Ethanol : 4.55 mg/mL (9.20 mM); ultrasonic and warming and heat to 60°C)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.0224 mL	10.1120 mL	20.2241 mL
	5 mM	0.4045 mL	2.0224 mL	4.0448 mL
	10 mM	---	---	---

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

### BIOLOGICAL ACTIVITY

Description	NGB 2904 is a potent, selective, orally active and brain-penetrated antagonist of dopamine D3 receptor, with a K <sub>i</sub> of 1.4 nM. NGB 2904 shows selectivity for D3 over D2, 5-HT2, α1, D4, D1 and D5 receptors (K <sub>i</sub> s=217, 223, 642, >5000, >10000 and >10000 nM, respectively). NGB 2904 antagonizes Quinpirole-stimulated mitogenesis <sup>[1][2]</sup> .
IC <sub>50</sub> & Target	D <sub>3</sub> Receptor 1.4 nM (K <sub>i</sub> )
In Vitro	NGB 2904 antagonizes Quinpirole (100 nM)-stimulated mitogenesis, with an IC <sub>50</sub> of 5.0 nM <sup>[1]</sup> . 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 <sup>[3]</sup> . 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 <sup>[3]</sup> . 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]. 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.

[3]. 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;31(7):1393-1405.

---

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA