

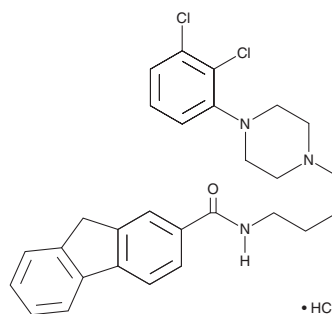
PRODUCT INFORMATION



NGB 2904 (hydrochloride)

Item No. 21457

CAS Registry No.: 189061-11-8
Formal Name: N-[4-[4-(2,3-dichlorophenyl)-1-piperazinyl]butyl]-9H-fluorene-2-carboxamide, monohydrochloride
MF: C₂₈H₂₉Cl₂N₃O • HCl
FW: 530.9
Purity: ≥98%
UV/Vis.: λ_{max}: 282, 306 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

NGB 2904 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the NGB 2904 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. NGB 2904 (hydrochloride) is soluble in organic solvents such as ethanol and DMSO. The solubility of NGB 2904 (hydrochloride) in these solvents is approximately 5 and 25 mM, respectively.

Description

NGB 2904 is an antagonist that is selective for the dopamine D₃ receptor (K_i = 1.4 nM).¹ It potently inhibits quinpirole-stimulated mitogenesis (IC₅₀ = 6.8 nM).² NGB 2904 attenuates cocaine- and stress-induced reinstatement of drug-seeking behavior in rats.^{3,4} It also increases spontaneous and amphetamine-stimulated locomotion in mice.⁵

References

1. Yuan, J., Chen, X., Brodbeck, R., *et al.* NGB 2904 and NGB 2849: Two highly selective dopamine D₃ receptor antagonists. *Bioorg. Med. Chem. Lett.* **8(19)**, 2715-2718 (1998).
2. Grundt, P., Carlson, E.E., Cao, J., *et al.* Novel heterocyclic trans olefin analogues of N-{4-[4-(2,3-dichlorophenyl)piperazin-1-yl]butyl}arylcarboxamides as selective probes with high affinity for the dopamine D₃ receptor. *J. Med. Chem.* **48(3)**, 839-848 (2005).
3. Gilbert, J.G., Newman, A.H., Gardner, E.L., *et al.* Acute administration of SB-277011A, NGB 2904, or BP 897 inhibits cocaine cue-induced reinstatement of drug-seeking behavior in rats: Role of dopamine D₃ receptors. *Synapse* **57(1)**, 17-28 (2005).
4. Xi, Z.-X., Newman, A.H., Gilbert, J.G., *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* **31(7)**, 1393-1405 (2006).
5. Pritchard, L.M., Newman, A.H., McNamara, R.K., *et al.* The dopamine D₃ receptor antagonist NGB 2904 increases spontaneous and amphetamine-stimulated locomotion. *Pharmacol. Biochem. Behav.* **86(4)**, 718-726 (2007).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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