

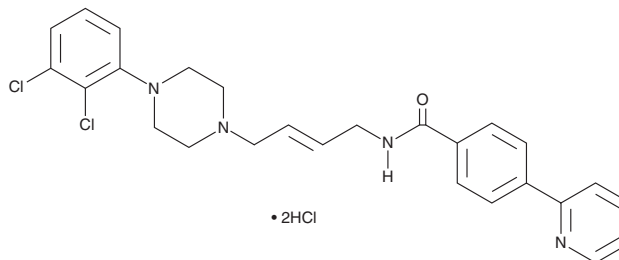
PRODUCT INFORMATION



PG-01037 (hydrochloride)

Item No. 22079

CAS Registry No.: 675599-62-9
Formal Name: N-[(2E)-4-[4-(2,3-dichlorophenyl)-1-piperazinyl]-2-buten-1-yl]-4-(2-pyridinyl)-benzamide, dihydrochloride
MF: C₂₆H₂₆Cl₂N₄O • 2HCl
FW: 554.3
Purity: ≥98%
UV/Vis.: λ_{max}: 254, 284 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

PG-01037 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the PG-01037 (hydrochloride) in the solvent of choice. PG-01037 (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of PG-01037 (hydrochloride) in these solvents is approximately 2, 30, and 5 mg/ml, respectively.

Description

PG-01037 is a selective dopamine D₃ receptor antagonist (K_is = 0.7, 93, and 375 nM for HEK293 cells expressing human D₃, D₂, and D₄ receptors, respectively).¹ It inhibits quinpirole-induced stimulation of mitogenesis in CHO cells expressing human dopamine D₃ receptors (EC₅₀ = 3 nM). PG-01037 (32 mg/kg) reduces progressive-ratio methamphetamine self-administration in rats allowed extended access.² It reduces loss of dopaminergic neurons in the substantia nigra pars compacta and improves motor performance in the coat-hanger test in a mouse model of Parkinson's disease induced by MPTP.³

References

1. 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).
2. Orio, L., Wee, S., Newman, A.H., *et al.* The dopamine D₃ receptor partial agonist CJB090 and antagonist PG01037 decrease progressive ratio responding for methamphetamine in rats with extended-access. *Addict. Biol.* **15(3)**, 312-323 (2010).
3. Elgueta, D., Aymerich, M.S., Contreras, F., *et al.* Pharmacologic antagonism of dopamine receptor D₃ attenuates neurodegeneration and motor impairment in a mouse model of Parkinson's disease. *Neuropharmacology* **113(Pt A)**, 110-123 (2017).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/22/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM