

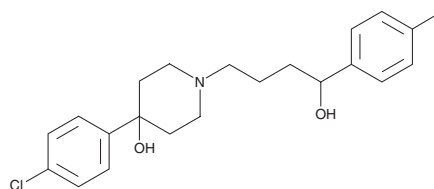
PRODUCT INFORMATION



Reduced Haloperidol

Item No. 28017

CAS Registry No.: 34104-67-1
Formal Name: 4-(4-chlorophenyl)- α -(4-fluorophenyl)-4-hydroxy-1-piperidinebutanol
Synonym: Haloperidol Metabolite II
MF: C₂₁H₂₅ClFNO₂
FW: 377.9
Purity: \geq 98%
Supplied as: A solid
Storage: -20°C
Stability: \geq 2 years



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

Laboratory Procedures

Reduced haloperidol is supplied as a solid. A stock solution may be made by dissolving the reduced haloperidol in the solvent of choice, which should be purged with an inert gas. Reduced haloperidol is slightly soluble in methanol and dichloromethane.

Description

Reduced haloperidol is an active metabolite of haloperidol (Item No. 12014).¹ It is formed *via* reduction of haloperidol by ketone reductase. Reduced haloperidol inhibits radioligand binding to sigma-1 and dopamine D₂ receptors (K_s = 1.4 and 31 nM, respectively) and stimulates brain-derived neurotrophic factor (BDNF) secretion from CCF-SSTG1 and U87MG astrocytic glial cells.² It also inhibits norepinephrine, dopamine, and serotonin (5-HT) reuptake (K_s = 21, 25, and 33 μ M, respectively, in COS-7 cells expressing the human transporters).¹ Reduced haloperidol (0.5 mg/kg) increases latency to paw withdrawal in mouse models of capsaicin- but not force-induced mechanical hypersensitivity.³

References

1. Bryan-Lluka, L.J., Siebert, G.A., and Pond, S.M. Potencies of haloperidol metabolites as inhibitors of the human noradrenaline, dopamine and serotonin transporters in transfected COS-7 cells. *Naunyn Schmiedebergs Arch. Pharmacol.* **360(2)**, 109-115 (1999).
2. Dalwadi, D.A., Kim, S., and Schetz, J.A. Activation of the sigma-1 receptor by haloperidol metabolites facilitates brain-derived neurotrophic factor secretion from human astroglia. *Neurochem Int.* **105(5)**, 27-31 (2017).
3. Entrena, J.M., Cobos, E.J., Nieto, F.R., *et al.* Antagonism by haloperidol and its metabolites of mechanical hypersensitivity induced by intraplantar capsaicin in mice: Role of sigma-1 receptors. *Psychopharmacology (Berl)*. **205(1)**, 21-33 (2008).

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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