

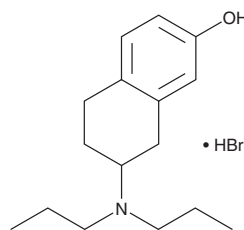
# PRODUCT INFORMATION



## 7-hydroxy DPAT (hydrobromide)

Item No. 29516

**CAS Registry No.:** 76135-30-3  
**Formal Name:** 7-(dipropylamino)-5,6,7,8-tetrahydro-2-naphthalenol, monohydrobromide  
**MF:** C<sub>16</sub>H<sub>25</sub>NO • HBr  
**FW:** 328.3  
**Purity:** ≥95%  
**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

7-hydroxy DPAT (hydrobromide) is supplied as a crystalline solid. A stock solution may be made by dissolving the 7-hydroxy DPAT (hydrobromide) in the solvent of choice, which should be purged with an inert gas. 7-hydroxy DPAT (hydrobromide) is soluble in DMSO.

### Description

7-hydroxy DPAT is a dopamine D<sub>3</sub> receptor agonist.<sup>1</sup> It selectively binds to the dopamine D<sub>3</sub> over the D<sub>2</sub>, D<sub>1</sub>, and D<sub>4</sub> receptors (K<sub>s</sub> = 0.78, 61, 650, and 5,300 nM, respectively, in radioligand binding assays). 7-hydroxy DPAT increases calcium mobilization in HEK293 cells expressing the D<sub>3</sub> receptor with an EC<sub>50</sub> value of 13.5 nM in a FLIPR assay.<sup>2</sup> It decreases the release of striatal dopamine and its metabolite 3,4-dihydroxyphenylacetic acid (DOPAC; Item No. 24912) in rats when administered intraperitoneally at a dose of 0.25 mg/kg.<sup>3</sup> 7-hydroxy DPAT (2 μg/μl for eight weeks, i.c.v.) reduces the loss of ipsilateral substantia nigra pars compacta (SNC) dopaminergic neurons in a rat model of Parkinson's disease induced by 6-OHDA (Item No. 25330).<sup>4</sup> It also decreases amphetamine-induced ipsilateral rotations and increases the number of steps reached with the contralateral paw in the staircase test in the same model.

### References

1. Lévesque, D., Diaz, J.A., Pilon, C., *et al.* Identification, characterization, and localization of the dopamine D<sub>3</sub> receptor in rat brain using 7-[<sup>3</sup>H]hydroxy-N,N-di-n-propyl-2-aminotetralin. *Proc. Natl. Acad. Sci. USA* **89**(17), 8155-8159 (1992).
2. Moreland, R.B., Nakane, M., Donnelly-Roberts, D., *et al.* Comparative pharmacology of human dopamine D<sub>2</sub>-like receptor stable cell lines coupled to calcium flux through G<sub>αo5</sub>. *Biochem. Pharmacol.* **68**(4), 761-772 (2004).
3. Mulder, T.B.A., de Vries, J.B., Dijkstra, D., *et al.* Further in vitro and in vivo studies with the putative presynaptic dopamine agonist N,N-dipropyl-7-hydroxy-2-aminotetralin. *Naunyn Schmiedebergs Arch. Pharmacol.* **336**(5), 494-501 (1987).
4. Van Kampen, J.M. and Eckman, C.B. Dopamine D<sub>3</sub> receptor agonist delivery to a model of Parkinson's disease restores the nigrostriatal pathway and improves locomotor behavior. *J. Neurosci.* **26**(27), 7272-7280 (2006).

#### 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, 11/16/2022

#### 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