

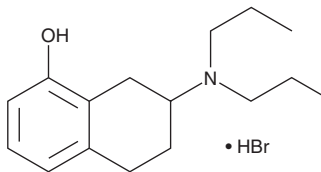
PRODUCT INFORMATION



8-hydroxy DPAT (hydrobromide)

Item No. 22608

CAS Registry No.: 76135-31-4
Formal Name: 7-(dipropylamino)-5,6,7,8-tetrahydro-1-naphthalenol, monohydrobromide
Synonym: 8-OH-DPAT
MF: C₁₆H₂₅NO • HBr
FW: 328.3
Purity: ≥98%
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

8-hydroxy DPAT (hydrobromide) (8-OH-DPAT) is supplied as a crystalline solid. A stock solution may be made by dissolving the 8-OH-DPAT in the solvent of choice, which should be purged with an inert gas. 8-OH-DPAT is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of 8-OH-DPAT in these solvents is approximately 20 and 12 mg/ml, respectively.

8-OH-DPAT is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 8-OH-DPAT should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. 8-OH-DPAT has a solubility of approximately 0.16 mg/ml in a 1:5 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

8-OH-DPAT is an agonist of serotonin (5-HT) receptor subtype 5-HT_{1A} (EC₅₀ = 12 nM in rat hippocampal membranes).¹ It mimics the effect of serotonin (Item No. 14332) on reducing excitatory post-synaptic potentials (EPSPs) in the entorhinal cortex layers II and III when used at concentrations of 10 and 50 μM.² In rhesus monkeys, it enhances the behavioral effects of Δ⁹-tetrahydrocannabinol (Δ⁹-THC; Item Nos. 12068 | ISO60157) in a discriminant stimulus-shock test when administered at a dose of 0.178 mg/kg.³ In mice, 8-OH-DPAT reduces the number of attack bites when administered directly to the dorsal raphe nucleus in a baclofen-induced model of aggressiveness and impairs contextual fear when administered prior to training at a dose of 0.5 mg/kg.^{4,5} It also reduces the incidence of apnea and improves respiratory regularity in a methyl-CpG-binding protein 2-deficient mouse model of Rett syndrome when administered at a dose of 50 μg/kg.⁶ In a rat model of diabetes, 8-OH-DPAT enhances bradycardia in response to vagal electrical stimulation.⁷

References

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4. Takahashi, A., Shimamoto, A., Boyson, C.O., et al. *J. Neurosci.* **30**(35), 11771-11780 (2010).
5. Stiedl, O., Misane, I., Spiess, J., et al. *J. Neurosci.* **20**(22), 8515-8527 (2000).
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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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