

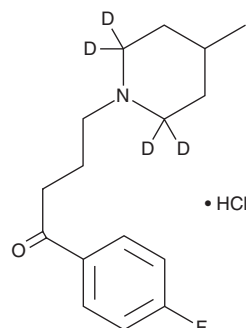
PRODUCT INFORMATION



Melperone-d₄ (hydrochloride)

Item No. 31489

CAS Registry No.: 1219798-80-7
Formal Name: 1-(4-fluorophenyl)-4-(4-methylpiperidin-1-yl-2,2,6,6-d₄)butan-1-one, monohydrochloride
Synonym: Methylperone-d₄
MF: C₁₆H₁₈D₄FNO • HCl
FW: 303.8
Chemical Purity: ≥98% (Melperone)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀
Supplied as: A 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

Melperone-d₄ (hydrochloride) is intended for use as an internal standard for the quantification of melperone (Item No. 19770) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Melperone-d₄ (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the melperone-d₄ (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Melperone-d₄ (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide.

Description

Melperone is an atypical antipsychotic.¹ It binds to α_1 - and α_2 -adrenergic and dopamine D₂ receptors (K_d s = 180, 150, and 180 nM, respectively), as well as the serotonin (5-HT) receptor subtype 5-HT_{2A} (K_d = 102 nM). It is selective for these receptors over histamine H₁, muscarinic, 5-HT_{1A}, 5-HT_{1D}, and 5-HT_{2C} receptors (K_d s = 580, >10,000, 2,200, 3,400, and 2,100 nM, respectively). Melperone (2 mg/kg per day) increases basal, but not amphetamine-induced, extracellular dopamine levels in the rat nucleus accumbens.²

References

1. Richelson, E. and Souder, T. Binding of antipsychotic drugs to human brain receptors focus on newer generation compounds. *Life Sci.* **68(1)**, 29-39 (2000).
2. Ichikawa, J. and Meltzer, H.Y. The effect of chronic atypical antipsychotic drugs and haloperidol on amphetamine-induced dopamine release in vivo. *Brain Res.* **574(1-2)**, 98-104 (1992).

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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