

PRODUCT INFORMATION



Paroxetine-d₆ (hydrochloride)

Item No. 35603

Formal Name: (3S,4R)-3-[(1,3-benzodioxol-5-yloxy)methyl-d₂]-4-(4-fluorophenyl)-piperidine-2,2,6,6-d₄, monohydrochloride

MF: C₁₉H₁₄D₆FNO₃ • HCl

FW: 371.9

Chemical Purity: ≥95% (Paroxetine)

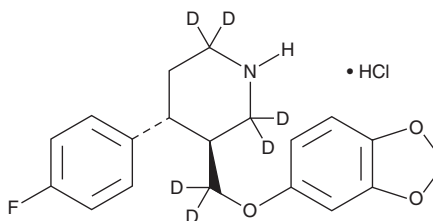
Deuterium

Incorporation: ≥99% deuterated forms (d₁-d₆); ≤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

Paroxetine-d₆ (hydrochloride) is intended for use as an internal standard for the quantification of paroxetine (Item No. 14998) 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).

Paroxetine-d₆ (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the paroxetine-d₆ (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Paroxetine-d₆ (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of paroxetine-d₆ (hydrochloride) in DMF is approximately 33 mg/ml and approximately 20 mg/ml in ethanol and DMSO.

Description

Paroxetine is a selective serotonin reuptake inhibitor (SSRI; K_i = 0.04 nM).¹ It is selective for the serotonin transporter (SERT) over the dopamine and norepinephrine transporters (K_is = 400 and 90 nM, respectively) as well as the serotonin (5-HT) receptor subtypes 5-HT_{1A} and 5-HT_{2A}, the histamine H₁ receptor, α₁- and α₂-adrenergic receptors (α₂-ARs), and muscarinic acetylcholine receptors (mAChRs; K_is = 21,168, 6,320, 13,746, 995, 3,915, and 42 nM, respectively).^{1,2} Paroxetine (5 mg/kg) decreases immobility time in the forced swim test in mice.³ Formulations containing paroxetine have been used in the treatment of depression, obsessive-compulsive disorder (OCD), panic disorder, social and generalized anxiety disorders, and post-traumatic stress disorder (PTSD).

References

1. Mattson, R.J., Catt, J.D., Denhart, D.J., *et al.* Conformationally restricted homotryptamines. 2. Indole cyclopropylmethylamines as selective serotonin reuptake inhibitors. *J. Med. Chem.* **48**(19), 6023-6034 (2005).
2. Owens, M.J., Neal, W., Plott, S.J., *et al.* Neurotransmitter receptor and transporter binding profile of antidepressants and their metabolites. *J. Pharmacol. Exp. Ther.* **283**(3), 1305-1322 (1997).
3. Sugimoto, Y., Tagawa, N., Kobayashi, Y., *et al.* Involvement of the sigma₁ receptor in the antidepressant-like effects of fluvoxamine in the forced swimming test in comparison with the effects elicited by paroxetine. *Eur. J. Pharmacol.* **696**(1-3), 96-100 (2012).

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, 12/12/2022

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