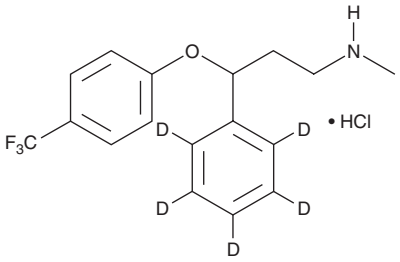
PRODUCT INFORMATION

Fluoxetine-d_5 (hydrochloride)

Item No. 18253

CAS Registry No.:	1173020-43-3
Formal Name:	N-methyl-3-(phenyl-d_5)-3-(4-(trifluoromethyl)phenoxy)propan-1-amine, monohydrochloride
MF:	$C_{17}H_{13}D_5F_3NO \bullet HCl$
FW:	350.8
Chemical Purity:	≥98% (Fluoxetine)
Deuterium Incorporation:	≥99% deuterated forms (d_1-d_5); ≤1% d_0
UV/Vis.:	λ_{max}: 227, 263 nm
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

Fluoxetine-d_5 (hydrochloride) is intended for use as an internal standard for the quantification of fluoxetine (Item No. 14418) 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).

Fluoxetine-d_5 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the fluoxetine-d_5 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Fluoxetine-d_5 (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of fluoxetine-d_5 (hydrochloride) in ethanol and DMSO is approximately 12.5 mg/ml and approximately 16 mg/ml in DMF.

Description

Fluoxetine is a selective serotonin reuptake inhibitor, displaying a marked preference for the serotonin transporter (K_d = 0.81 nM) over the norepinephrine transporter (K_d = 240 nM) and the dopamine transporter (K_d = 3,600 nM).[1] Formulations containing fluoxetine have been effective in the treatment of major depression as well as other psychiatric disorders.[2,3]

References

1. Tatsumi, M., Groshan, K., Blakely, R.D., *et al.* Pharmacological profile of antidepressants and related compounds at human monoamine transporters. *Eur. J. Pharmacol.* **340(2-3)**, 249-258 (1997).
2. Farley, R.L. Pharmacological treatment of major depressive disorder in adolescents. *ScientificWorldJournal* **5**, 420-426 (2005).
3. Pacher, P. and Kecskemeti, V. Trends in the development of new antidepressants. Is there a light at the end of the tunnel? *Curr. Med. Chem.* **11(7)**, 925-943 (2004).

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