# **PRODUCT** INFORMATION



## Norfluoxetine-d<sub>5</sub> (hydrochloride)

Item No. 34742

| CAS Registry No.: | 1185132-92-6  |         |
|-------------------|---|---------|
| Formal Name:      | γ-[4-(trifluoromethyl)phenoxy]-   |         |
|                   | benzenepropan-1,1,2,2,3-d <sub>5</sub> -amine,<br>monohydrochloride                     |         |
| Synonym:          | Desmethylfluoxetine-d <sub>5</sub>  |         |
| MF:               | $C_{16}H_{11}D_5F_3NO \bullet HCI$  |         |
| FW:               | 336.8   | $F_{S}$ |
| Chemical Purity:  | ≥98% (Norfluoxetine)  |         |
| Deuterium         |   |         |
| Incorporation:    | $\geq$ 99% deuterated forms (d <sub>1</sub> -d <sub>5</sub> ); $\leq$ 1% d <sub>0</sub> |         |
| 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

Norfluoxetine-d<sub>5</sub> (hydrochloride) is intended for use as an internal standard for the quantification of norfluoxetine (Item No. 15900) 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).

Norfluoxetine- $d_5$  (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the norfluoxetine- $d_5$  (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Norfluoxetine- $d_5$  (hydrochloride) is slightly soluble in chloroform and DMSO.

#### Description

Norfluoxetine is an active metabolite of the antidepressant fluoxetine.<sup>1</sup> It is formed from fluoxetine by the cytochrome P450 (CYP) isoforms CYP2C9, CYP2C19, and CYP3A.<sup>2</sup> Norfluoxetine inhibits serotonin (5-HT) uptake in rat brain synaptosomal membrane preparations (K<sub>i</sub> = 44.7 nM) and isolated human platelets  $(IC_{50} = ~15 \text{ nM}).^1$  It has been found in the tissues of fish exposed to wastewater effluent.<sup>3</sup>

#### References

- 1. Wong, D.T., Bymaster, F.P., Reid, L.R., et al. Norfluoxetine enantiomers as inhibitors of serotonin uptake in rat brain. Neuropsychopharmacology 8(4), 337-344 (1993).
- 2. Hiemke, C. and Härtter, S. Pharmacokinetics of selective serotonin reuptake inhibitors. Pharmacol. Ther. 85(1), 11-28 (2000).
- 3. Brooks, B.W., Chambliss, C.K., Stanley, J.K., et al. Determination of select antidepressants in fish from an effluent-dominated stream. Environ. Toxicol. Chem. 24(2), 464-469 (2005).

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

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