

# PRODUCT INFORMATION



## Fluvoxamine-d<sub>4</sub> (maleate)

Item No. 34885

**Formal Name:** (1E)-5-methoxy-1-[4-(trifluoromethyl)phenyl]-1-pentanone O-(2-aminoethyl-1,1,2,2-d<sub>4</sub>)oxime, 2Z-butenedioate

**MF:** C<sub>15</sub>H<sub>17</sub>D<sub>4</sub>F<sub>3</sub>N<sub>2</sub>O<sub>2</sub> • C<sub>4</sub>H<sub>4</sub>O<sub>4</sub>

**FW:** 438.4

**Chemical Purity:** ≥98% (Fluvoxamine)

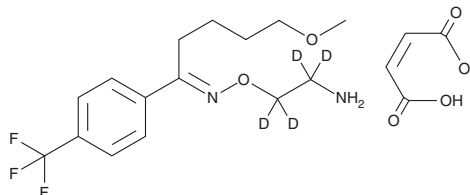
### Deuterium

**Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>4</sub>); ≤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

Fluvoxamine-d<sub>4</sub> is intended for use as an internal standard for the quantification of fluvoxamine (Item No. 15617) 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).

## Description

Fluvoxamine is a selective serotonin reuptake inhibitor (SSRI).<sup>1</sup> It selectively inhibits reuptake of serotonin over norepinephrine reuptake in rat hypothalamic synaptosomes (K<sub>i</sub>s = 6.2 and 1,100 nM, respectively). Fluvoxamine (10 mg/kg) reduces immobility time in the forced swim test in mice, an effect that can be blocked by the sigma-1 (σ<sub>1</sub>) receptor antagonist BD 1047 (Item No. 22928).<sup>2</sup> It also reduces marble-burying behavior in the marble-burying test in mice when administered at a dose of 45 mg/kg, indicating anxiolytic- or reduced obsessive compulsive-like behaviors.<sup>3</sup> Formulations containing fluvoxamine have been used in the treatment of obsessive compulsive disorder and social anxiety disorder.

## References

1. Johnson, A.M. An overview of the animal pharmacology of paroxetine. *Acta Psychiatr. Scand.* **80(Suppl. 350)**, 14-20 (1989).
2. Sugimoto, Y., Tagawa, N., Kobayashi, Y., *et al.* Involvement of the sigma<sub>1</sub> 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).
3. Hayashi, A., Yamashita, N., Baba, J., *et al.* Effects of co-administered fluvoxamine and diazepam, ethyl loflazepate or imipramine on marble-burying behavior in mice. *Oyo Yakuri* **57(5-6)**, 103-108 (1999).

### 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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