

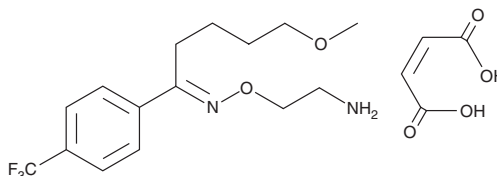
# PRODUCT INFORMATION



## Fluvoxamine (maleate)

Item No. 15617

**CAS Registry No.:** 61718-82-9  
**Formal Name:** (1E)-5-methoxy-1-[4-(trifluoromethyl)phenyl]-1-pentanone O-(2-aminoethyl) oxime, 2Z-butenedioate  
**Synonyms:** DU-23000, MK-264, NSC 309469  
**MF:** C<sub>15</sub>H<sub>21</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:** 434.4  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 253 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

Fluvoxamine (maleate) is supplied as a crystalline solid. A stock solution may be made by dissolving the fluvoxamine (maleate) in the solvent of choice, which should be purged with an inert gas. Fluvoxamine (maleate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of fluvoxamine (maleate) in ethanol is approximately 25 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of fluvoxamine (maleate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of fluvoxamine (maleate) in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### 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

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, 12/16/2022

#### 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