

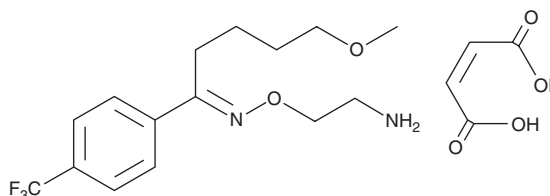
# PRODUCT INFORMATION



## 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:** Fevarin, Floxyfral, Luvox<sup>®</sup>, 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%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A crystalline solid  
**UV/Vis.:** λ<sub>max</sub>: 253 nm



### Laboratory Procedures

For long term storage, we suggest that fluvoxamine (maleate) be stored as supplied at -20°C. It should be stable for at least two years.

Fluvoxamine (maleate) is supplied as a crystalline solid. A stock solution may be made by dissolving the fluvoxamine (maleate) in the solvent of choice. Fluvoxamine (maleate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. 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 selectively inhibits the reuptake of serotonin ( $K_i = 6.2$  nM in rat hypothalamus) with comparatively little effect on noradrenaline reuptake ( $K_i = 1,100$  nM), resulting in decreased serotonin turnover in the brain.<sup>1,2</sup> By potentiating the pharmacological effects of serotonin and its precursor, 5-hydroxy tryptophan, in the central nervous system, fluvoxamine is known to exhibit antidepressant effects.<sup>2</sup> At higher concentrations, fluvoxamine can block the activity of HERG channels ( $IC_{50} = 3.8$  μM), which carry the delayed rectifier potassium current that is important for repolarization of ventricular action potentials over the course of normal cardiac functioning.<sup>3</sup> It also has been reported to exhibit cardioprotective effects by stimulating the  $\sigma_1$  receptor.<sup>4</sup>

### References

1. Claassen, V., Davies, J.E., Hertting, G., *et al. Br. J. Pharmacol.* **60(4)**, 505-516 (1977).
2. Hrdina, P.D. *J. Psychiatry Neurosci.* **16(2 Suppl. 1)**, 10-8 (1991).
3. Mitcheson, J.S. *Br. J. Pharmacol.* **139(5)**, 883-884 (2003).
4. Tagashira, H. and Fukunaga, K. *Yakugaku Zasshi* **132(2)**, 167-172 (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.

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