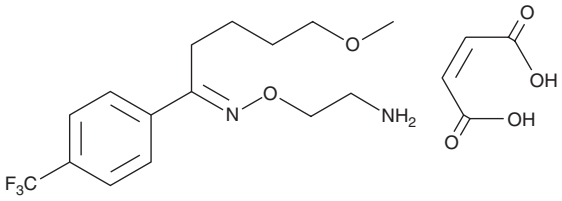
PRODUCT INFORMATION

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®, MK-264, NSC 309469
MF: $C_{15}H_{21}F_3N_2O_2 \bullet C_4H_4O_4$
FW: 434.4
Purity: ≥95%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 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.[1,2] 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.[2] 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.[3] It also has been reported to exhibit cardioprotective effects by stimulating the σ_1 receptor.[4]

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).

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