Fluvoxamine maleate

Cat. No.: HY-B0103A

CAS No.: 61718-82-9

Molecular Formula: $C_{19}H_{25}F_3N_2O_6$

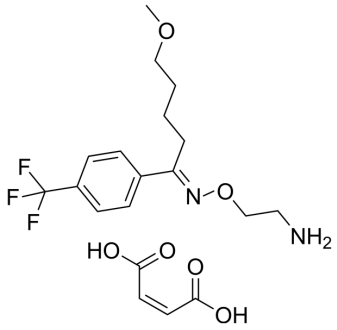
Molecular Weight: 434.41

Target: Serotonin Transporter

Pathway: Neuronal Signaling

Storage: 4°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (230.20 mM)

H_2O : 20 mg/mL (46.04 mM; Need ultrasonic)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.3020 mL	11.5099 mL	23.0197 mL
5 mM	0.4604 mL	2.3020 mL	4.6039 mL
10 mM	0.2302 mL	1.1510 mL	2.3020 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 20 mg/mL (46.04 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: phosphate buffer saline
   Solubility: 20 mg/mL (46.04 mM); Clear solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (5.75 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (5.75 mM); Clear solution
5. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.75 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Fluvoxamine maleate (DU-23000 maleate) is an antidepressant which functions pharmacologically as a selective serotonin reuptake inhibitor.

IC_{50} & Target	SSRIs[1].
In Vivo	Fluvoxamine maleate (DU-23000 maleate) is effective in inhibiting 5-HT uptake by blood platelets and brain synaptosomes. The antagonism by fluvoxamine of the reserpine-induced lowering of the pentamethylenetetrazole convulsive threshold can be regarded as due to an effect upon 5-HT uptake. In contrast to the effects of desmethylimipramine and imipramine, no stimulatory effects are found in rats when rapidly acting reserpine-like compounds are given following a dose of fluvoxamine[1]. Fluvoxamine (DU-23000) appears to improve combat-related PTSD symptoms but not depressive symptoms. The high attrition rate and lack of a placebo group limits the conclusions of our study. Controlled studies of fluvoxamine in the treatment of PTSD are warranted[2]. Fluvoxamine (DU-23000) was less potent at decreasing ethanol self-administration when food was available concurrently versus when ethanol was available in isolation [ED50: 4.0 (2.7-5.9) and 5.1 (4.3-6.0)]. Effects on food were similar under each condition in which food was available. The results demonstrate that the potency of fluvoxamine in reducing ethanol-maintained behavior depends on whether ethanol is available in isolation or in the context of concurrently scheduled food reinforcement[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Sci Transl Med. 2019 Feb 6;11(478). pii: eaau5266.
- EMBO Mol Med. 2022 May 25;e15373.
- Mol Med. 2022 Aug 3;28(1):87.
- Viruses. 2022, 14(7), 1369.
- PLoS Negl Trop Dis. 2019 Aug 20;13(8):e0007681.

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REFERENCES

[1]. Ginsburg, B.C., J.W. Pinkston, and R.J. Lamb, The potency of fluvoxamine to reduce ethanol self-administration decreases with concurrent availability of food. Behav Pharmacol, 2012. 23(2): p. 134-42.

[2]. Claassen, V., et al., Fluvoxamine, a specific 5-hydroxytryptamine uptake inhibitor. Br J Pharmacol, 1977. 60(4): p. 505-16.

[3]. Escalona, R., et al., Fluvoxamine treatment in veterans with combat-related post-traumatic stress disorder. Depress Anxiety, 2002. 15(1): p. 29-33.

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