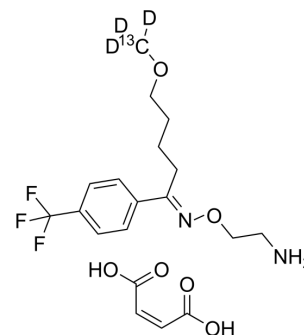


## Fluvoxamine-<sup>13</sup>C, d<sub>3</sub> maleate

<b>Cat. No.:</b>	HY-B0103AS2
<b>Molecular Formula:</b>	C <sub>18</sub> <sup>13</sup> CH <sub>22</sub> D <sub>3</sub> F <sub>3</sub> N <sub>2</sub> O <sub>6</sub>
<b>Molecular Weight:</b>	438.42
<b>Target:</b>	Serotonin Transporter; Isotope-Labeled Compounds
<b>Pathway:</b>	Neuronal Signaling; Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Fluvoxamine- <sup>13</sup> C, d <sub>3</sub> maleate is <sup>13</sup> C and deuterated labeled Fluvoxamine maleate (HY-B0103A). Fluvoxamine maleate (DU-23000 maleate) is an antidepressant which functions pharmacologically as a selective serotonin reuptake inhibitor.
<b>In Vitro</b>	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>In Vivo</b>	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 <sup>[2]</sup> . 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 <sup>[3]</sup> . 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 <sup>[4]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### 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.
- [4]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-216.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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