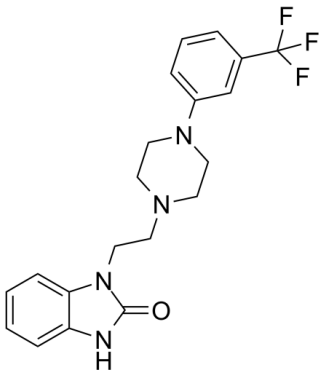
Data Sheet

Product Name:	Flibanserin
Cat. No.:	CS-4671
CAS No.:	167933-07-5
Molecular Formula:	C20H21F3N4O
Molecular Weight:	390.40
Target:	5-HT Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Solubility:	DMSO : ≥ 45 mg/mL (115.27 mM)



BIOLOGICAL ACTIVITY:

Flibanserin (BIMT-17) is a full agonist of the serotonin **5-HT1A receptor** (K_i=1 nM) and an antagonist of **5-HT2A** (49 nM). Flibanserin binds to dopamine D4 receptors (4-24 nM), and has negligible affinity for a variety of other neurotransmitter receptors and ion channels. Flibanserin is efficacious in treating hypoactive sexual desire disorder (HSDD)[1][2]. **In Vivo:** The multifunctional serotonergic agent Flibanserin is both a serotonin 1A agonist and a serotonin 2A antagonist. Flibanserin theoretically improves sexual functioning by enhancing downstream release of dopamine and norepinephrine while reducing serotonin release in the brain circuits that mediate symptoms of reduced sexual interest and desire. Flibanserin, a new molecular entity for the treatment of hypoactive sexual desire disorder (HSDD) in premenopausal women. Flibanserin improves interest in and desire for sex by hypothetically targeting these circuits and causing the release of dopamine and norepinephrine while also reducing the release of serotonin. Flibanserin has demonstrated clinical efficacy in premenopausal women who have reduced interest in and desire for sex and has 2 principal pharmacologic actions in microcircuits: it is a full agonist at postsynaptic serotonin 5HT1A receptors and an antagonist at postsynaptic 5HT2A receptors.

References:

[1]. Gelman F, et al. Flibanserin for hypoactive sexual desire disorder: place in therapy. Ther Adv Chronic Dis. 2017 Jan;8(1):16-25.

[2]. Invernizzi RW, et al. Flibanserin, a potential antidepressant drug, lowers 5-HT and raises dopamine and noradrenaline in the rat prefrontal cortex dialysate: role of 5-HT(1A) receptors. Br J Pharmacol. 2003 Aug;139(7):1281-8.

CAIndexNames:

2H-Benzimidazol-2-one, 1,3-dihydro-1-[2-[4-[3-(trifluoromethyl)phenyl]-1-piperazinyl]ethyl]-

SMILES:

O=C1NC2=CC=CC=C2N1CCN3CCN(C4=CC=CC(C(F)(F)F)=C4)CC3

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

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