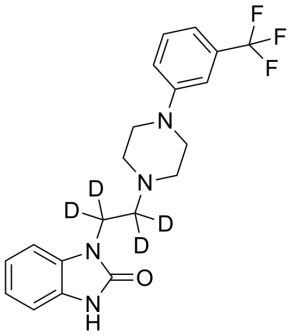
Flibanserin-d_4-1

Cat. No.:	HY-A0095S1
CAS No.:	2122830-91-3
Molecular Formula:	$C_{20}H_{17}D_4F_3N_4O$
Molecular Weight:	394.43
Target:	5-HT Receptor; Isotope-Labeled Compounds
Pathway:	GPCR/G Protein; Neuronal Signaling; Others
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (126.77 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.5353 mL	12.6765 mL	25.3530 mL
	5 mM	0.5071 mL	2.5353 mL	5.0706 mL
	10 mM	0.2535 mL	1.2677 mL	2.5353 mL

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

BIOLOGICAL ACTIVITY

Description

Flibanserin-d_4-1 is deuterium labeled Flibanserin. Flibanserin (BIMT-17) is a full agonist of the serotonin 5-HT1A receptor (Ki=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 Vitro

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[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

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

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

[3]. 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.

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