

# PRODUCT INFORMATION



## Flibanserin-d<sub>4</sub> (hydrochloride)

Item No. 26779

**CAS Registry No.:** 2748630-46-6  
**Formal Name:** 1,3-dihydro-1-[2-[4-[3-(trifluoromethyl)phenyl]-1-piperazinyl]ethyl]-1,1,2,2-d<sub>4</sub>]-2H-benzimidazol-2-one, monohydrochloride

**MF:** C<sub>20</sub>H<sub>17</sub>D<sub>4</sub>F<sub>3</sub>N<sub>4</sub>O • HCl  
**FW:** 430.9

**Chemical Purity:** ≥98% (Flibanserin)

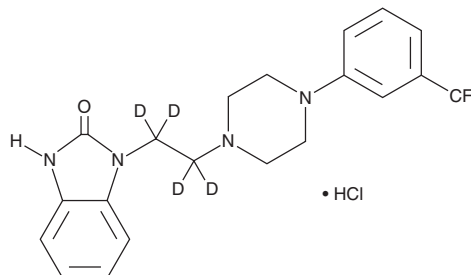
**Deuterium**

**Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>4</sub>); ≤1% d<sub>0</sub>

**Supplied as:** A solid

**Storage:** -20°C

**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Flibanserin-d<sub>4</sub> (hydrochloride) is intended for use as an internal standard for the quantification of flibanserin (Item No. 19203) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Flibanserin-d<sub>4</sub> (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the flibanserin-d<sub>4</sub> (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Flibanserin-d<sub>4</sub> (hydrochloride) is slightly soluble in DMSO and methanol.

### Description

Flibanserin is a full agonist of the serotonin 5-HT<sub>1A</sub> receptor and an antagonist of 5-HT<sub>2A</sub> (K<sub>i</sub>s = 1 and 49 nM, respectively).<sup>1</sup> It also binds to dopamine D<sub>4</sub> receptors with K<sub>i</sub> values ranging from 4-24 nM, but demonstrates no affinity for the other 5-HT subtypes or other neurotransmitter receptors.<sup>1</sup> *In vitro*, flibanserin has been shown to reduce forskolin-stimulated cAMP formation in cells and rat tissues and to antagonize the accumulation of phosphatidyl inositol turnover induced by 5-HT in the mouse cortex.<sup>1</sup> At 10 mg/kg, flibanserin can reduce serotonin in the prefrontal cortex and dorsal raphe of conscious rats while increasing extracellular noradrenaline and dopamine.<sup>1</sup>

### Reference

1. Invernizzi, R.W., Sacchetti, G., Parini, S., *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<sub>1A</sub> receptors. *Br. J. Pharmacol.* **139**(7), 1281-1288 (2003).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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#### 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