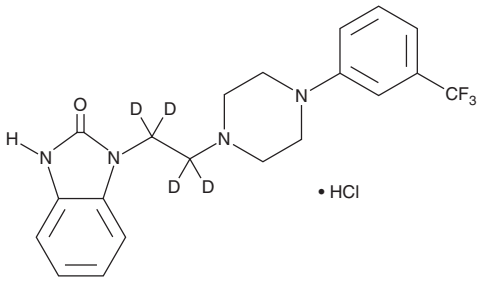
PRODUCT INFORMATION

Flibanserin-d_4 (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_4]-2H-benzimidazol-2-one, monohydrochloride
MF: $C_{20}H_{17}D_4F_3N_4O \bullet HCl$
FW: 430.9
Chemical Purity: ≥98% (Flibanserin)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_4); ≤1% d_0
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_4 (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_4 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the flibanserin-d_4 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Flibanserin-d_4 (hydrochloride) is slightly soluble in DMSO and methanol.

Description

Flibanserin is a full agonist of the serotonin 5-HT_{1A} receptor and an antagonist of 5-HT_{2A} (K_is = 1 and 49 nM, respectively).[1] It also binds to dopamine D_4 receptors with K_i values ranging from 4-24 nM, but demonstrates no affinity for the other 5-HT subtypes or other neurotransmitter receptors.[1] *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.[1] At 10 mg/kg, flibanserin can reduce serotonin in the prefrontal cortex and dorsal raphe of conscious rats while increasing extracellular noradrenaline and dopamine.[1]

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_{1A} receptors. *Br. J. Pharmacol.* **139(7)**, 1281-1288 (2003).

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