

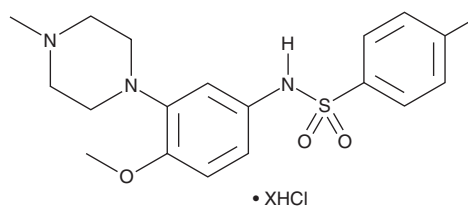
# PRODUCT INFORMATION



## SB-258585 (hydrochloride)

Item No. 17416

**CAS Registry No.:** 1216468-02-8  
**Formal Name:** 4-iodo-N-[4-methoxy-3-(4-methyl-1-piperazinyl)phenyl]-benzenesulfonamide, hydrochloride  
**MF:** C<sub>18</sub>H<sub>22</sub>IN<sub>3</sub>O<sub>3</sub>S • XHCl  
**FW:** 523.8  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 215, 247 nm  
**Supplied as:** A crystalline 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

SB-258585 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the SB-258585 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. SB-258585 (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of SB-258585 (hydrochloride) in these solvents is approximately 0.25, 20, and 15 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of SB-258585 (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of SB-258585 (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

SB-258585 is a potent, selective antagonist of the serotonin 5-HT<sub>6</sub> receptor (pK<sub>i</sub> = 8.53).<sup>1</sup> It displays over 100-fold selectivity for 5-HT<sub>6</sub> over other 5-HT, dopamine, and α-adrenergic receptors. Radiolabeled forms of SB-258585 have been used to evaluate other potential ligands of the 5-HT<sub>6</sub> receptor.<sup>2</sup> SB-258585 has been used in cells and in animals to evaluate the role of the 5-HT<sub>6</sub> receptor in diverse processes.<sup>3-5</sup>

### References

1. Hirst, W.D., Minton, J.A.L., Bromidge, S.M., *et al.* Characterization of [<sup>125</sup>I]-SB-258585 binding to human recombinant and native 5-HT<sub>6</sub> receptors in rat, pig and human brain tissue. *Br. J. Pharmacol.* **130**(7), 1597-1605 (2000).
2. Routledge, C., Bromidge, S.M., Moss, S.F., *et al.* Characterization of SB-271046: A potent, selective and orally active 5-HT<sub>6</sub> receptor antagonist. *Br. J. Pharmacol.* **130**, 1606-1612 (2000).
3. Tatara, A., Shimizu, S., Shin, N., *et al.* Modulation of antipsychotic-induced extrapyramidal side effects by medications for mood disorders. *Prog. Neuropsychopharmacol. Biol. Psychiatry* **38**, 252-259 (2012).
4. Duhr, F., Délérís, P., Raynaud, F., *et al.* Cdk5 induces constitutive activation of 5-HT<sub>6</sub> receptors to promote neurite growth. *Nat. Chem. Biol.* **10**, 590-597 (2014).
5. Shumizu, S., Mizuguchi, Y., Sobue, A., *et al.* Interaction between anti-Alzheimer and antipsychotic drugs in modulating extrapyramidal motor disorders in mice. *J. Pharmacol. Sci.* **127**(4), 439-445 (2015).

#### 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.

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