

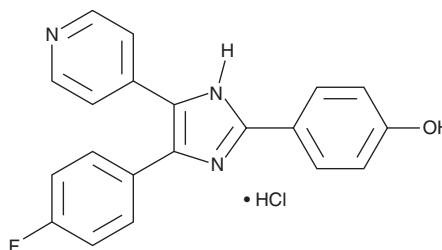
# PRODUCT INFORMATION



## SB 202190 (hydrochloride)

Item No. 21201

**CAS Registry No.:** 350228-36-3  
**Formal Name:** 4-[4-(4-fluorophenyl)-5-(4-pyridinyl)-1H-imidazol-2-yl]-phenol, monohydrochloride  
**MF:** C<sub>20</sub>H<sub>14</sub>FN<sub>3</sub>O • HCl  
**FW:** 367.8  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 279 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years



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

### Laboratory Procedures

SB 202190 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the SB 202190 (hydrochloride) in the solvent of choice. SB 202190 (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of SB 202190 (hydrochloride) in these solvents is approximately 30 mg/ml.

SB 202190 (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, SB 202190 (hydrochloride) should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. SB 202190 (hydrochloride) has a solubility of approximately 0.1 mg/ml in a 1:10 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

SB 202190 is a potent, selective, and cell-permeable inhibitor of p38 MAP kinases, inhibiting p38α (SAPK2A, MAPK14) and p38β (SAPK2B, MAPK11) with IC<sub>50</sub> values of 50 and 100 nM, respectively.<sup>1,2</sup> When tested at 10 μM, SB 202190 has negligible effects on a range of other kinases, including other MAP kinases such as ERK and JNK.<sup>2</sup> It directly binds to the ATP binding pocket of p38 MAP kinases.<sup>3</sup> SB 202190 has been used to elucidate the roles of p38 MAP kinases in inflammatory cytokine expression, nicotine-induced receptor expression, and HIV-mediated depressive disorder.<sup>4-6</sup>

### References

1. Jiang, Y., Chen, C., Li, Z., et al. *J. Biol. Chem.* **271(30)**, 17920-17926 (1996).
2. Davies, S.P., Reddy, H., Caivano, M., et al. *Biochem. J.* **351(1)**, 95-105 (2000).
3. Fox, T., Coll, J.T., Xie, X., et al. *Protein Sci.* **7(11)**, 2249-2255 (1998).
4. Fu, X., Lawson, M.A., Kelley, K.W., et al. *J. Neuroinflammation* **8(88)**, 1-12 (2011).
5. Riis, J.L., Johansen, C., Vestergaard, C., et al. *Cytokine* **56(3)**, 699-707 (2011).
6. Röthig, A., Schreckenberger, R., Weber, K., et al. *Cell Physiol. Biochem.* **29**, 485-492 (2012).

#### 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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