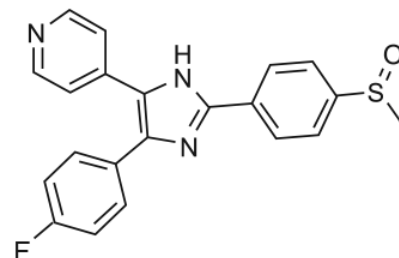


SB203580

Catalog Number: ST10024



| | |
|-----------------------|---|
| Size | 2 mg |
| Description | SB203580 is a selective p38 mitogen-activated protein kinase (MAPK) inhibitor (IC ₅₀ of 0.3-0.5 μM). It displays a 100-500-fold selectivity over LCK, GSK-3β and PKBa. SB203580 has been shown to enhance clonal growth of skin epithelial progenitor cells and to stimulate neural stem cell (NSC) proliferation. |
| Molecular Weight | 377.44 |
| Molecular Formula | C ₂₁ H ₁₆ FN ₃ OS |
| Chemical Name | 4-(4-Fluorophenyl)-2-(4-methylsulfinylphenyl)-5-(4-pyridyl)1H-imidazole |
| CAS Number | 152121-47-6 |
| PubChem Identifier | 176155 |
| Appearance | Yellow solid |
| Purity | >96% by HPLC analysis |
| Solubility | Soluble in DMSO at 100 mM |
| Reconstitution | For a 10 mM concentrated stock solution, reconstitute the compound by adding 530 μL of DMSO to the entire contents of vial. If precipitate is observed, warm the solution to 37°C for 2 to 5 minutes. |
| Recommended Usage | For use in cell culture, warm medium just prior to adding the reconstituted compound. Once the compound is added, mix and filter-sterilize the medium using a 0.2 μM low-protein binding filter. Note: for most cells, the maximum tolerance to DMSO is less than 0.5%. |
| Storage and Stability | Solid: Shipped at room temperature. Store at -20°C. Stable for 6 months when stored as directed. Solution: Following reconstitution, store aliquots in tightly sealed vials at -20°C. Avoid repeated freeze-thaw cycles. |
| References | <p>Borsch-Haubold, A.G., et al. (1998) Direct inhibition of cyclooxygenase-1 and -2 by the kinase inhibitors SB 203580 and PD 98059. <i>J Biol Chem</i> 273: 28766-28772. PMID: 9786874.</p> <p>Davies, S.P., et al. (2000) Specificity and mechanism of action of some commonly used protein kinase inhibitors. <i>Biochem J</i> 351: 95-105. PMID: 10998351.</p> <p>Sato, K., et al. (2008) Inhibitors of p38 mitogen-activated protein kinase enhance proliferation of mouse neural stem cells. <i>J Neurosci Res</i> 86: 2179-2189. PMID: 18338804.</p> |

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