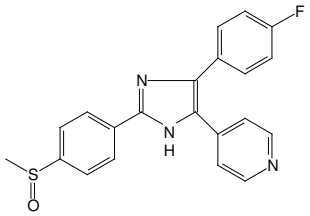
SB203580

(4-(4-Fluorophenyl)-2-(4-methylsulfinylphenyl)-5-(4-pyridyl)-1H-imidazole) (p38 MAPK inhibitor)

Cat.-No.	Amount
INH-007	2 mg



Lyophilized.

SB203580 is a recognized inhibitor of p38-MAPKs. The IC50 for inhibition of p38-MAPK stimulation of MAPKAPK2 was approximately 0.07 µM, whereas that for total SAPK/JNK activity was 3-10 µM. SB203580 did not inhibit immunoprecipitated JNK1 isoforms.
The pyridinyl imidazole compounds were found to act as specific inhibitors of p38α and p38β but not p38γ and p38δ through competition with ATP for the same binding site on the p38 kinase.
SB203580 can inhibit the key cell cycle event of retinoblastoma protein phosphorylation in interleukin-2-stimulated T cells. Studies on the proximal regulator of this event, the phosphatidylinositol 3-kinase/protein kinase B (PKB)(Akt/Rac) kinase pathway, showed that SB203580 blocked the phosphorylation and activation of PKB by inhibiting the PKB kinase, phosphoinositide-dependent protein kinase 1.

For in vitro use only!

Selected references:
Kalmes et al. (1999) Raf-1 is activated by the p38 mitogen-activated protein kinase inhibitor SB203580. *FEBS Lett.* **444**:71.
Lali et al. (2000) The pyridinyl imidazole inhibitor SB203580 blocks phosphoinositide-dependent protein kinase activity, protein kinase B phosphorylation, and retinoblastoma hyperphosphorylation in interleukin-2-stimulated T cells independently of p38 mitogen-activated protein kinase. *J. Biol. Chem.* **275**:7395.
Clerk A. and Sugden P. H. (1998) The p38-MAPK inhibitor, SB203580, inhibits cardiac stress-activated protein kinases/c-Jun N-terminal kinases (SAPKs/JNKs). *FEBS Lett.* **426**:93.

Purity: ≥ 98%

Molecular formula: $C_{21}H_{16}FN_3OS$

Molecular weight: 377.43 g/mol

Solubility: 50 mg/ml in DMSO.

Store: -20 °C