

Product Name: SB 202190

Catalog No.: 1264

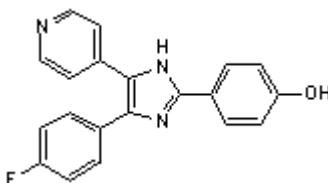
Batch No.: 2

CAS Number: 152121-30-7

IUPAC Name: 4-[4-(4-Fluorophenyl)-5-(4-pyridinyl)-1*H*-imidazol-2-yl]phenol

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₀H₁₄N₃OF.¼H₂O
Batch Molecular Weight: 335.85
Physical Appearance: Off-white crystalline solid
Solubility: DMSO to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.25 (Dichloromethane:Methanol [10:1])
Melting Point: Between 260 - 263°C(Dec)
HPLC: Shows >99% purity
¹H NMR: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen	
Theoretical	71.52	4.35	12.51	0 0 0
Found	71.27	4.29	12.48	0 0 0

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

A highly selective, potent and cell-permeable inhibitor of p38 MAP kinase. Binds within the ATP pocket of the active kinase ($K_d = 38$ nM, as measured in recombinant human p38), and selectively inhibits the p38 α and β isoforms ($IC_{50} = 50$ and 100 nM at SAPK2a/p38 and SAPK2b/p38 β 2 respectively). Also available as part of the MAPK Inhibitor Tocriset™.

Physical and Chemical Properties:

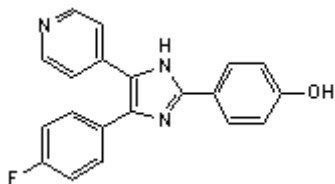
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Minimum Purity: >99%

Batch Molecular Structure:



References:

Jiang et al (1996) Characterization of the structure and function of a new mitogen-activated protein kinase (p38 β). *J.Biol.Chem.* **271** 17920. PMID: 8663524.

Nemoto et al (1998) Induction of apoptosis by SB 202190 through inhibition of p38 β mitogen-activated protein kinase. *J.Biol.Chem.* **273** 16415. PMID: 9632706.

Frantz et al (1998) The activation of p38 mitogen-activated protein kinase determines the efficiency of ATP competition for pyridinylimidazole inhibitor binding. *Biochemistry* **37** 13846. PMID: 9753474.

Davies et al (2000) Specificity and mechanism of action of some commonly used protein kinase inhibitors. *Biochem.J.* **351** 95. PMID: 10998351.

Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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