Certificate of Analysis

Product Name: **SB 203580 hydrochloride** **Catalog No.: 1402** **Batch No.: 6**

CAS Number: 869185-85-3

IUPAC Name: 4-[5-(4-Fluorophenyl)-2-[4-(methylsulphonyl)phenyl]-1*H*-imidazol-4-yl]pyridine hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{21}H_{16}FN_3OS.HCl.¼H_2O$

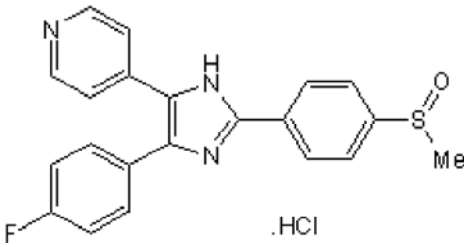
Batch Molecular Weight: 418.39

Physical Appearance: Yellow solid

Solubility: water to 25 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 97.9% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen	Chlorine
Theoretical	60.28	4.22	10.04	8.47
Found	58.94	4.1	9.78	9.64

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Product Information

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IUPAC Name: 4-[5-(4-Fluorophenyl)-2-[4-(methylsulphonyl)phenyl]-1*H*-imidazol-4-yl]pyridine hydrochloride

Description:

Water-soluble salt of SB 203580 (Cat. No. 1202). Selective inhibitor of p38 mitogen-activated protein kinase (IC_{50} values are 50 and 500 nM for SAPK2a/p38 and SAPK2b/p38β2 respectively). Displays 100-500-fold selectivity over LCK, GSK3β and PKBα. Shown to inhibit interleukin-2-induced T cell proliferation, cyclooxygenase-1 and -2, and thromboxane synthase.

Physical and Chemical Properties:

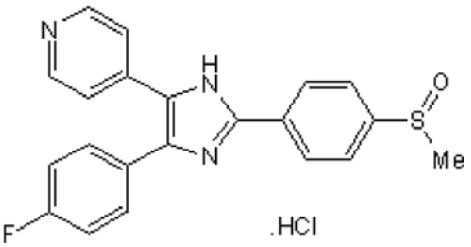
Batch Molecular Formula: $C_{21}H_{16}FN_3OS.HCl.¼H_2O$

Batch Molecular Weight: 418.39

Physical Appearance: Yellow solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

water to 25 mM

Aqueous solutions of this product can be hard to obtain and warming to 65ºC for 3 minutes with stirring may be required. Brief exposure of the compound to these conditions does not cause any degradation to occur

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.

Licensing Information:

Sold with the permission of GlaxoSmithKline

References:

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

Borsch-Haubold *et al* (1998) Direct inhibition of cyclooxygenase-1 and -2 by the kinase inhibitors SB 203580 and PD 98059. J.Biol.Chem. ***273*** 28766. PMID: 9786874.

Saklatvala *et al* (1996) Role for p38 mitogen-activated protein kinase in platelet aggregation caused by collagen on a thromboxane analogue. J.Biol.Chem. ***271*** 6586. PMID: 8636072.

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