



Certificate of Analysis

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Product Name: SB 239063 Catalog No.: 1962 Batch No.: 4

CAS Number: 193551-21-2

IUPAC Name: trans-4-[4-(4-Fluorophenyl)-5-(2-methoxy-4-pyrimidinyl)-1*H*-imidazol-1-yl]cyclohexanol

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{20}H_{21}FN_4O_2$

Batch Molecular Weight: 368.41 **Physical Appearance:** white solid

Solubility: DMSO to 10 mM with gentle warming

Storage: Desiccate at +4°C

Batch Molecular Structure:

2. ANALYTICAL DATA

TLC: $R_f = 0.53$ (Dichloromethane:Methanol [9:1])

HPLC: Shows 99.7% purity

1H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 65.2 5.75 15.21 Found 64.74 5.69 15.08



Product Information

Print Date: May 9th 2013

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Description:

Potent and selective p38 MAP kinase inhibitor (IC_{50} = 44 nM for p38 α). Displays > 220-fold selectivity over ERK, JNK1 and other kinases; ~ 3-fold more selective than SB 203580 (Cat. Nos. 1202 and 1402). Reduces inflammatory cytokine production and is neuroprotective following oral administration in vivo.

Physical and Chemical Properties:

Batch Molecular Formula: C₂₀H₂₁FN₄O₂ Batch Molecular Weight: 368.41 Physical Appearance: white solid

Minimum Purity: >98%

Batch Molecular Structure:

Storage: Desiccate at +4°C

Solubility & Usage Info:

DMSO to 10 mM with gentle warming

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.

References:

Underwood *et al* (2000) SB 239063, a potent p38 MAP kinase inhibitor, reduces inflammatory cytokine production, airways eosinophil infiltration, and persistence. J.Pharmacol.Exp.Ther. **293** 281. PMID: 10734180.

Barone *et al* (2001) SB 239063, a second-generation p38 mitogen-activated protein kinase inhibitor, reduces brain injury and neurological deficits in cerebral focal ischemia. J.Pharmacol.Exp.Ther. **296** 312. PMID: 11160612.

Legos *et al* (2002) The selective p38 inhibitor SB-239063 protects primary neurons from mild to moderate excitotoxic injury. Eur.J.Pharmacol. **447** 37. PMID: 12106800.

