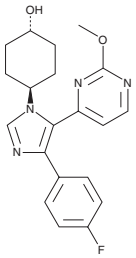
PRODUCT INFORMATION

SB 239063

Item No. 19142

CAS Registry No.:	193551-21-2
Formal Name:	*trans*-4-[4-(4-fluorophenyl)-5-(2-methoxy-4-pyrimidinyl)-1H-imidazol-1-yl]-cyclohexanol
MF:	$C_{20}H_{21}FN_4O_2$
FW:	368.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 232, 268, 317 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

SB 239063 is supplied as a crystalline solid. A stock solution may be made by dissolving the SB 239063 in the solvent of choice, which should be purged with an inert gas. SB 239063 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of SB 239063 in these solvents is approximately 0.25, 16, and 10 mg/ml, respectively.

SB 239063 is sparingly soluble in aqueous solutions. For maximum solubility in aqueous buffers, SB 239063 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. SB 239063 has a solubility of approximately 0.14 mg/ml in a 1:6 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

SB 239063 is a selective p38 MAPK inhibitor (IC_{50} = 44 nM for recombinant purified p38α).[1] It displays greater than 220-fold selectivity for p38 MAPK over ERK, JNK1, and other kinases.[1] SB 239063 has been shown to reduce inflammatory cytokine production in lipopolysaccharide-stimulated human peripheral blood monocytes (IC_{50}s = 0.12 and 0.35 µM, respectively for IL-1 and TNF-α) and is neuroprotective following oral administration in a rat model of cerebral focal ischemia.[1,2]

References

1. Underwood, D.C., Osborn, R.R., Kotzer, C.J., *et al.* SB 239063, a potent p38 MAP kinase inhibitor, reduces inflammatory cytokine production, airways eosinophil infiltration, and persistence. *J. Pharmacol. Exp. Ther.* **293(1)**, 281-288 (2000).
2. Barone, F.C., Irving, E.A., Ray, A.M., *et al.* 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(2)**, 312-321 (2001).

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