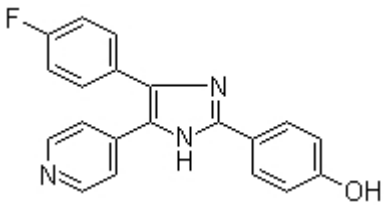
Product Introduction

SB202190 (FHPI)

SB202190 (FHPI) is a potent p38 MAPK inhibitor targeting **p38α/β** with **IC50** of 50 nM/100 nM, sometimes used instead of SB 203580 to investigate potential roles for SAPK2a/p38 in vivo.

Technical Data:

Molecular Weight (MW):	331.34	
Formula:	C20H14N3OF	
Solubility (25°C) * <1 mg/ml means slightly soluble or insoluble:	DMSO 66 mg/mL	
	Water <1 mg/mL	
	Ethanol 12 mg/mL	
Purity:	>98%	
Storage:	3 years -20℃Powder	
	6 months-80℃in DMSO	
CAS No.:	152121-30-7	

Biological Activity

SB 202190 significantly inhibits both basal and anti-Fas antibody-induced MAPKAPK 2 activity in a dose-dependent manner. SB202190 by itself is sufficient to induce cell death in Jurkat and HeLa cells through activation of CPP32-like caspases, which can be blocked by expression of bcl-2. SB202190-induced apoptosis is attenuated by p38β but augmented by p38α. [2] SB 202190 strongly inhibits UVB induced COX-2 protein expression in HaCaT cells, and markedly inhibits UVB induced cox-2 mRNA. [3] SB 202190 treatment inhibits the expression of albumin-induced proinflammatory (monocyte

chemoattractant protein-1) and transforming growth factor (TGF)-beta1-induced profibrotic (procollagen-Ialpha1) genes over 50% in renal tubular cells (normal rat kidney-52E). [4] SB 202190 treatment induces phosphorylation of JNK in a dose- and time- dependent manner in A549 cells, induces phosphorylation of ATF-2 transcription factor, and increases AP-1 DNA binding. [6] SB 202190 treatment enhances the growth of THP-1 and MV4-11 cells. SB 202190 increases the phosphorylation of c-Raf and ERK, suggesting that Ras-Raf-MEK-mitogen-activated protein kinase (MAPK) pathway activation is involved in the leukemia cell growth induced by SB 202190. [7]

Inhibiting p38 by administration of SB 202190 inhibits PV IgG-induced blister formation in the passive transfer mouse model. [5] In the endotoxin model of sepsis, SB 202190 treatment produces a statistically significant survival benefit compared with control. [8]

References

[1] Davies SP, et al. Biochem J, 2000, 351(Pt 1), 95-105.

[2] Nemoto S, et al. J Biol Chem, 1998, 273(26), 16415-16420.

[3] Chen W, et al. Oncogene, 2001, 20(29), 3921-3926.

[4] Prakash J, et al. J Pharmacol Exp Ther, 2006, 319(1), 8-19.

[5] Berkowitz P, et al. Proc Natl Acad Sci U S A, 2006, 103(34), 12855-12860.

[6] Muniyappa H, et al. Cell Signal, 2008, 20(4), 675-683.

[7] Hirosawa M, et al. Leuk Res, 2009, 33(5), 693-699.

[8] O'Sullivan AW, et al. J Surg Res, 2009, 152(1), 46-53.

[9] Paillas S, et al. Cancer Res, 2011, 71(3), 1041-1049.

[10] Tsai MS, et al. Mol Cancer Ther, 2012, 11(3), 561-571.

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