



## CERTIFICATE OF ANALYSIS

<b>PRODUCT:</b>	<b>SB203580,</b> [4-(4-Fluorophenyl)-2-(4-methylsulfinylphenyl)-5-(4-pyridyl)-1 <i>H</i> -imidazole], C <sub>21</sub> H <sub>16</sub> N <sub>3</sub> FOS, M.W. 377.4
<b>PRODUCT NUMBER:</b>	S-1014
<b>LOT NUMBER:</b>	A8749
<b>APPEARANCE:</b>	White solid
<b>SOLUBILITY:</b>	Soluble in DMSO or methanol.
<b>PURITY (<sup>1</sup>H-NMR):</b>	> 98%
<b>MELTING POINT::</b>	235-236°C
<b>OTHER DATA:</b>	Cell permeable, specific inhibitor of p38 (SAPK2a). Can inhibit the key cell cycle event of retinoblastoma protein phosphorylation in interleukin-2-stimulated T cells. Studies on the proximal regulator of this event, the phosphatidylinositol 3-kinase/protein kinase B (PKB) (Akt/Rac) kinase pathway, showed that SB203580 blocked the phosphorylation and activation of PKB by inhibiting the PKB kinase, phosphoinositide-dependent protein kinase 1 (PDK1). The concentrations of SB203580 required to block PKB phosphorylation (IC <sub>50</sub> = 3-5 μM) are only approximately 10-fold higher than those required to inhibit p38 MAP kinase

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(IC<sub>50</sub> = 0.3-0.5 $\mu$ M). These data define a new activity for this drug and suggest that extreme caution should be used when interpreting data when SB203580 has been used at concentrations above 1-2 $\mu$ M.

## STORAGE & HANDLING:

Store at -20°C.

**WARNING: MAY CAUSE IRRITATION!**

CAUTION: For laboratory research & scientific manufacturing use only. Not for human or drug use. The pharmacological and toxicological properties of this product have not been fully investigated. Use caution when handling. Do not use this compound if you are not fully trained or are unaware of the hazards involved.

Verified: KT

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