

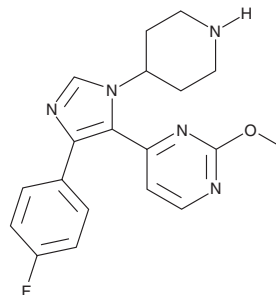
# PRODUCT INFORMATION



**SB-242235**

Item No. 35117

**CAS Registry No.:** 193746-75-7  
**Formal Name:** 4-[4-(4-fluorophenyl)-1-(4-piperidiny)-1H-imidazol-5-yl]-2-methoxy-pyrimidine  
**MF:** C<sub>19</sub>H<sub>20</sub>FN<sub>5</sub>O  
**FW:** 353.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 211, 227, 317 nm  
**Supplied as:** A 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-242235 is supplied as a solid. A stock solution may be made by dissolving the SB-242235 in the solvent of choice, which should be purged with an inert gas. SB-242235 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of SB-242235 in these solvents is approximately 30, 20, and 25 mg/ml, respectively.

## Description

SB-242235 is an inhibitor of p38α MAPK (IC<sub>50</sub> = 0.019 μM).<sup>1</sup> It is selective for p38α MAPK over a panel of 10 kinases, including ERK2, JNK1, EGFR, and C-RAF (IC<sub>50</sub>s = >10 μM for all). SB-242235 inhibits IL-1α-induced production of nitric oxide (NO) in bovine articular cartilage explants but not IL-1β-induced production of NO in human articular cartilage explants (IC<sub>50</sub>s = ~1 and >20 μM, respectively).<sup>2</sup> It inhibits increases in epidermal COX-2 levels and erythema in mice exposed to UVB irradiation when administered at a dose of 100 mg/kg.<sup>3</sup> SB-242235 (10, 30, and 60 mg/kg) reduces paw edema in a rat model of adjuvant-induced arthritis.<sup>4</sup>

## References

1. Adams, J.L., Boehm, J.C., Gallagher, T.F., *et al.* Pyrimidinylimidazole inhibitors of p38: cyclic N-1 imidazole substituents enhance p38 kinase inhibition and oral activity. *Bioorg. Med. Chem. Lett.* **11(21)**, 2867-2870 (2001).
2. Badger, A.M., Roshak, A.K., Cook, M.N., *et al.* Differential effects of SB 242235, a selective p38 mitogen-activated protein kinase inhibitor, on IL-1 treated bovine and human cartilage/chondrocyte cultures. *Osteoarthritis Cartilage* **8(6)**, 434-443 (2000).
3. Kim, A.L., Labasi, J.M., Zhu, Y., *et al.* Role of p38 MAPK in UVB-induced inflammatory responses in the skin of SKH-1 hairless mice. *J. Invest. Dermatol.* **124(6)**, 1318-1325 (2005).
4. Badger, A.M., Griswold, D.E., Kapadia, R., *et al.* Disease-modifying activity of SB 242235, a selective inhibitor of p38 mitogen-activated protein kinase, in rat adjuvant-induced arthritis. *Arthritis Rheum.* **43(1)**, 175-183 (2000).

### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

### WARRANTY AND LIMITATION OF REMEDY

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