

Product Data Sheet

Chemical Properties

Product Name:	SB 242235
Cas No.:	193746-75-7
M.Wt:	353.39
Formula:	C ₁₉ H ₂₀ FN ₅ O



Chemical Name:	4-[5-(4-fluorophenyl)-3-piperidin-4-ylimidazol-4-yl]-2-methoxypyrimidine
Canonical SMILES:	<chem>COC1=NC=CC(=N1)C2=C(N=CN2C3CCNCC3)C4=CC=C(C=C4)F</chem>
Solubility:	Soluble in DMSO
Storage:	Store at -20°C
General tips:	For obtaining a higher solubility , please warm the tube at 37° C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20° C for several months.
Shopping Condition:	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request

Biological Activity

Targets :	MAPK Signaling
Pathways:	p38

Description:

SB 242235 is a selective inhibitor of p38 mitogen activated protein kinase (MAPK) with IC₅₀ values of 0.019μM and 1μM for p38α MAPK and p38β MAPK, respectively [1].

SB 242235 is developed for the treatment of cytokine-mediated diseases such as rheumatoid

arthritis (RA). It belongs to the pyridinyl imidazole class and shows potent anti-inflammatory activity without affecting 5-lipoxygenase or cyclooxygenase-1. SB 242235 is found to be a selective p38MAPK inhibitor. It has no significant inhibitory activity against ERK and JNK. In normal rats, administration of SB 242235 significantly inhibits the production of TNF α induced by LPS. When treated with AIA rats, SB 242235 inhibits paw edema with ED50 value of about 30 mg/kg. It also remarkably suppresses the joint damage of the rats. Moreover, SB 242235 exerts a significant inhibition of the cytokine IL-6 at dose of 60 mg/kg [2].

Reference:

[1] Ward K W, Proksch J W, Salyers K L, et al. SB-242235, a selective inhibitor of p38 mitogenactivated protein kinase. I: Preclinical pharmacokinetics. *xenobiotica*, 2002, 32(3): 221-233.

[2] 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 & Rheumatism*, 2000, 43(1): 175-183.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most ApexBio products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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