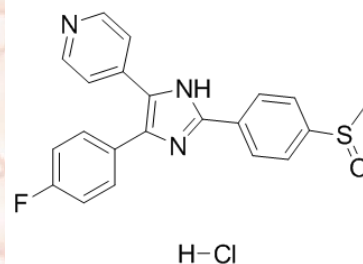


Product Data Sheet

SB 203580 hydrochloride

Cat. No.:	B1285
CAS No.:	869185-85-3
Formula:	C ₂₁ H ₁₇ ClFN ₃ O ₃ S
M.Wt:	413.9
Synonyms:	
Target:	MAPK Signaling
Pathway:	p38
Storage:	Store at -20°C



Solvent & Solubility

insoluble in EtOH; insoluble in H₂O; ≥20.7 mg/mL in DMSO

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	Concentration			
	1 mM	2.4160 mL	12.0802 mL	24.1604 mL
	5 mM	0.4832 mL	2.4160 mL	4.8321 mL
	10 mM	0.2416 mL	1.2080 mL	2.4160 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

Specific p38-MAPKs inhibitor

IC₅₀ & Target

0.6 μM (p38MAPK), 3-10 μM (JNK)

In Vitro

Cell Viability Assay

Cell Line:	MG-63 cells
Preparation method:	The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	10 μM, 24 hours

	Applications:	Cells were incubated for 60 min with various concentrations of SB203580 HCl (10, 5, and 1 μ M) prior to stimulation with TNF- α (10 ng/mL) for 24 hrs. Interleukin-6 production by TNF- α was stimulated in MG-63 cells, in a time- and dose-dependent manner, while pre-incubation with the p38 MAPK inhibitor SB203580HCl caused a statistically significant decrease in TNF- α -induced IL-6 secretion.
In Vivo	Animal experiment	
	Animal models:	Male ddY mice
	Dosage form:	Subcutaneous injection, 30 mg/kg
	Applications:	Twenty-five microliters of 1% carrageenan was injected into the right hind paw under light ether anesthesia. Paw volume was measured before and after carrageenan injection up to 6 h, using a plethysmograph. The inhibitor was injected s.c. at the back 1 h prior to carrageenan injection. It significantly inhibited the edema induced by carrageenan.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

- [1] Webb S J, McPherson J R, Pahan K, et al. Regulation of TNF- α -induced IL-6 production in MG-63 human osteoblast-like cells. *Journal of dental research*, 2002, 81(1): 17-22.
- [2] Nishikori T, Irie K, Suganuma T, et al. Anti-inflammatory potency of FR167653, a p38 mitogen-activated protein kinase inhibitor, in mouse models of acute inflammation. *European journal of pharmacology*, 2002, 451(3): 327-333.

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 APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term 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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