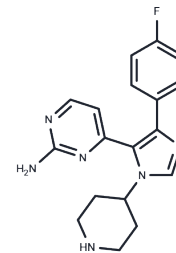


SB220025

## Chemical Properties

CAS No. : 165806-53-1  
 Formula: C<sub>18</sub>H<sub>19</sub>FN<sub>6</sub>  
 Molecular Weight: 338.38  
 Storage: Store at low temperature  
 Powder: -20°C for 3 years | In solvent: -80°C for 1 year  
 Actual storage temperature shall be subject to the COA.



## Biological Description

Description	SB220025 is an orally available, selective and potent inhibitor of P38 mitogen-activated protein kinase that inhibits p56Lck and PKC, inhibits endothelial growth hormone-induced Ca(2+) signaling, and inhibits angiogenesis, and can be used in the study of arthritis.
Targets(IC50)	p38 MAPK,PKC,Src
In vitro	SB220025 is an ATP-competitive and selective inhibitor of human p38 MAPK with an IC50 of 60 nM. p56Lck and PKC were also inhibited by SB220025 with IC50s of 3.5 and 2.89 μM, respectively. [2] SB220025 (20 μM; 6 h) significantly reduced IL-8 gene expression in HUVEC cells in response to globular adiponectin (gAd). [1]
In vivo	A single oral dose of 3-50 mg/kg SB220025 inhibited the production of inflammatory cytokines in vivo . Intraperitoneal administration of 5, 30, and 50 mg/kg SB220025 in a double dose inhibited angiogenesis in a mouse model of air sac granuloma . Oral administration of 30 mg/kg SB220025, given as a double dose for 3, 5, 7, or 14 days prevented the increase in angiogenesis after day 3 in the mouse air sac angiogenesis model . Oral administration of 50 mg/kg SB220025, double-dosed for 10 days, effectively inhibited the progression of arthritis in a chronic inflammatory disease model . [2]

## Solubility Information

Solubility	DMSO: 100 mg/mL (295.53 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	2.9553 mL	14.7763 mL	29.5526 mL
5 mM	0.5911 mL	2.9553 mL	5.9105 mL
10 mM	0.2955 mL	1.4776 mL	2.9553 mL
50 mM	0.0591 mL	0.2955 mL	0.5911 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Tomizawa A, et al. Induction of gene expression in response to globular adiponectin in vascular endothelial cells. *Life Sci.* 2009 Sep 9;85(11-12):457-61.

Jackson JR, et al. Pharmacological effects of SB 220025, a selective inhibitor of P38 mitogen-activated protein kinase, in angiogenesis and chronic inflammatory disease models. *J Pharmacol Exp Ther.* 1998 Feb;284(2):687-92.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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