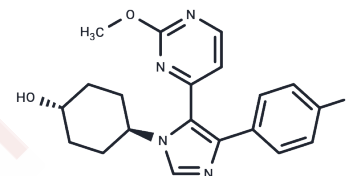


SB 239063

## Chemical Properties

CAS No. : 193551-21-2  
 Formula: C<sub>20</sub>H<sub>21</sub>FN<sub>4</sub>O<sub>2</sub>  
 Molecular Weight: 368.4  
 Storage: 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	SB 239063 (SB239063) is a potent and selective p38 MAPK $\alpha/\beta$ inhibitor with IC <sub>50</sub> of 44 nM, showing no activity against the $\gamma$ - and $\delta$ -kinase isoforms.
Targets(IC <sub>50</sub> )	Autophagy, p38 MAPK
In vitro	SB 239063 potently inhibits IL-1 and TNF- $\alpha$ production in LPS-stimulated human peripheral blood monocytes with IC <sub>50</sub> of 120 and 350 nM, respectively. [1] In oxygen-glucose-deprived hippocampal slice cultures, SB239063 strikingly reduces the levels of the pro-inflammatory cytokine IL-1 $\beta$ , causes cell death after oxygen-glucose deprivation and significantly diminishes microglia activation. [2] In human corneal endothelial cell, SB 239063 inhibits TGF- $\beta$ (2) and FGF-2-induced cell migration. [4]
In vivo	In both guinea pigs and mice, SB 239063 (10 mg/kg, p.o.) reduces antigen-induced airway eosinophilia. [1] In air- and ozone-exposed C57/BL6 and MKP-1(-/-) mice, SB239063 inhibits bronchial contraction. [3]

## Solubility Information

Solubility	DMSO: 3.7 mg/mL (10.04 mM), Heating is recommended. ( $< 1$ mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (2.71 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	2.7144 mL	13.5722 mL	27.1444 mL
5 mM	0.5429 mL	2.7144 mL	5.4289 mL
10 mM	0.2714 mL	1.3572 mL	2.7144 mL
50 mM	0.0543 mL	0.2714 mL	0.5429 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

Underwood DC, et al. J Pharmacol Exp Ther. 2000, 293(1), 281-288.

Strassburger M, et al. Eur J Pharmacol. 2008, 592(1-3), 55-61.

Li F, et al. Eur Respir J. 2011, 37(4), 933-942.

Joko T, et al. Exp Eye Res. 2013, 108, 23-32.

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