产品名称：**SB 239063**
产品别名：**SB 239063**

生物活性：

Description	SB 239063 is a potent, selective and orally active p38 MAPK inhibitor, exhibits an IC50 of 44 nM for recombinant purified human p38α, with equipotent inhibitory activity against p38α and p38β. SB 239063 has no effect on p38γ or p38δ. With anti-asthma activity and also be used to enhance memory which is impaired due to aging or medical conditions, such as, AD[1][2].
IC_{50} & Target	IC50: 44 nM (Human p38α)[1]
In Vitro	SB 239063 (0.1–10 μM ; 29 hours, 47 hours) increases apoptosis of eosinophils in a dose-related in the presence of 10 pM IL-5 at every time point from 21 hours onwards[1]. SB 239063 potently inhibits IL-1 and TNF- a production in LPS-stimulated human peripheral blood monocytes with IC50 values of 120 nM and 350 nM, respectively[1].

Apoptosis Analysis[1]	
Cell Line:	Eosinophils (guinea pig BALs)
Concentration:	0.1μM, 1μM, 10μM
Incubation Time:	29 hours, 47 hours
Result:	Increased apoptosis of eosinophils in a dose-related in the presence of 10 pM IL-5 at every time point from 21 hours onwards.

In Vivo	SB 239063 (12 mg/kg; p.o.; 1 hour before and 4 hours after OA challenge; b.i.d. for 3 days) significantly inhibits the resultant antigen-induced airway eosinophilia[1]. SB 239063 (12 mg/kg; p.o.) almost abolishes ovalbumin (OA)-induced airway eosinophilia (~ 93% inhibition) by inhalation[1]. SB 239063 is a potent inhibitor of LPS-induced TNF-alpha production in the mouse peritoneal cavity with an EC50 of 5.8 mg/kg (2.8–10.3; 95% CL)[1].

Animal Model:	Male BALB/c mice (18–20 g)[1]
Dosage:	12 mg/kg
Administration:	Oral administration; 1 h before and 4 h after OA challenge; bis in die for 3 days
Result:	Significantly inhibited the resultant antigen-induced airway eosinophilia.

In Vitro:

DMSO : 33.33 mg/mL (90.47 mM; Need ultrasonic)

H_2O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions	Solvent / Mass / Concentration	**1 mg**	**5 mg**	**10 mg**
	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

*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液；一旦配成溶液，请分装保存，避免反复冻融造成的产品失效。

储备液的保存方式和期限：-80°C, 6 months; -20°C, 1 month。-80°C 储存时，请在 6 个月内使用，-20°C 储存时，请在 1 个月内使用。

In Vivo:

请根据您的实验动物和给药方式选择适当的溶解方案。以下溶解方案都请先按照 **In Vitro** 方式配制澄清的储备液，再依次添加助溶剂：

Solvent&Solubility	——为保证实验结果的可靠性，澄清的储备液可以根据储存条件，适当保存；体内实验的工作液，建议您现用现配，当天使用； 以下溶剂前显示的百分比是指该溶剂在您配制终溶液中的体积占比；如在配制过程中出现沉淀、析出现象，可以通过加热和/或超声的方式助溶 1.请依序添加每种溶剂： 10% DMSO→40% PEG300 →5% Tween-80 → 45% saline Solubility: ≥ 2.5 mg/mL (6.79 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (6.79 mM，饱和度未知) 的澄清溶液。 以 1 mL 工作液为例，取 100 μL 25.0 mg/mL 的澄清 DMSO 储备液加到 400 μL PEG300 中，混合均匀；向上述体系中加入 50 μL Tween-80，混合均匀；然后继续加入 450 μL 生理盐水定容至 1 mL。 2.请依序添加每种溶剂： 10% DMSO →90% corn oil Solubility: ≥ 2.5 mg/mL (6.79 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (6.79 mM，饱和度未知) 的澄清溶液，此方案不适用于实验周期在半个月以上的实验。 以 1 mL 工作液为例，取 100 μL 25.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 玉米油中，混合均匀。
References	[1]. Underwood DC, et al. SB 239063, a potent p38 MAP kinase inhibitor, reduces inflammatory cytokine production, airways eosinophil infiltration, and persistence. J Pharmacol Exp Ther. 2000 Apr;293(1):281-8. [2]. Matthew Huentelman, et al. Methods of treating memory loss and enhancing memory performance. US 20120245188 A1.