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产品名称: **SM-7368**
CAS 号: **380623-76-7**
产品货号: **T78470**

生物活性:

Description	SM-7368 is a potent NF-κB inhibitor that targets downstream of MAPK p38 activation[1]. SM-7368 inhibits TNF-α-induced MMP-9 upregulation. SM-7368 can be used for the research of chemotherapies targeting TNF-α-mediated tumor invasion and metastasis [2].																				
IC50 & Target	NF-κB MMP-9 p38 MAP kinase																				
In Vitro	SM-7368 (5 μM) targets downstream of MAPK p38 activation in the human colon derived crypt like HT-29 and Caco-2 epithelial cell lines[1]. SM-7368 inhibits TNF-α-induced MMP-9 upregulation in a concentration-dependent manner and shows maximal activity at 10 μM. SM-7368 inhibits TNF-α-induced MMP-9 mRNA transcript accumulation and protein expression. SM-7368 strongly inhibits TNF-α-induced NF-κB activity but not AP-1 activity. SM-7368 strongly inhibits the TNF-α-induced invasion of HT1080 human fibrosarcoma cell line[2]. SM-7368 (10-25 μM) greatly inhibits TNF-α (20 ng/mL)-induced MMP-9 upregulation. 10 μM of SM-7368 almost completely abrogates this upregulation[2]. Western Blot Analysis[2] <table><tr><td>Cell Line:</td><td>HT1080 human fibrosarcoma cells</td></tr><tr><td>Concentration:</td><td>0, 1, 5, 10, 15, 20, and 25 μM</td></tr><tr><td>Incubation Time:</td><td>24 hours</td></tr><tr><td>Result:</td><td>Greatly inhibited TNF-α (20 ng/mL)-induced MMP-9 upregulation in a concentration-dependent manner.</td></tr></table>				Cell Line:	HT1080 human fibrosarcoma cells	Concentration:	0, 1, 5, 10, 15, 20, and 25 μM	Incubation Time:	24 hours	Result:	Greatly inhibited TNF-α (20 ng/mL)-induced MMP-9 upregulation in a concentration-dependent manner.									
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Solvent&Solubility	细胞实验: DMSO 中的溶解度 : 50 mg/mL (152.12 mM; 超声助溶; 吸湿的 DMSO 对产品的溶解度有显著影响, 请使用新开封的 DMSO) <table><tr><th rowspan="4">Preparing Stock Solutions</th><th>Solvent / Mass / Concentration</th><th>1 mg</th><th>5 mg</th><th>10 mg</th></tr><tr><th>1 mM</th><td>3.0424 mL</td><td>15.2119 mL</td><td>30.4238 mL</td></tr><tr><th>5 mM</th><td>0.6085 mL</td><td>3.0424 mL</td><td>6.0848 mL</td></tr><tr><th>10 mM</th><td>0.3042 mL</td><td>1.5212 mL</td><td>3.0424 mL</td></tr></table> * 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。 动物实验: 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: ——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 方案 一 请依序添加每种溶剂: 10% DMSO → 40% PEG300 → 5% Tween-80 → 45% Saline				Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg	1 mM	3.0424 mL	15.2119 mL	30.4238 mL	5 mM	0.6085 mL	3.0424 mL	6.0848 mL	10 mM	0.3042 mL	1.5212 mL	3.0424 mL
Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg																	
	1 mM	3.0424 mL	15.2119 mL	30.4238 mL																	
	5 mM	0.6085 mL	3.0424 mL	6.0848 mL																	
	10 mM	0.3042 mL	1.5212 mL	3.0424 mL																	



	Solubility: ≥ 2.08 mg/mL (6.33 mM); 澄清溶液 此方案可获得 ≥ 2.08 mg/mL (饱和度未知) 的澄清溶液。 以 1 mL 工作液为例, 取 100 μL 20.8 mg/mL 的澄清 DMSO 储备液加到 400 μL PEG300 中, 混合均匀; 再向上述体系中加入 50 μL Tween-80, 混合均匀; 然后再继续加入 450 μL 生理盐水 定容至 1 mL。 生理盐水的配制: 将 0.9 g 氯化钠, 溶解于 ddH₂O 并定容至 100 mL, 可以得到澄清透明的生理盐水溶液。
参考文献	[1]. Sabine Kuntz, et al. Carbonyl compounds methylglyoxal and glyoxal affect interleukin-8 secretion in intestinal cells by superoxide anion generation and activation of MAPK p38. Mol Nutr Food Res. 2010 Oct;54(10):1458-67. [2]. Ha Young Lee, et al. A small compound that inhibits tumor necrosis factor-alpha-induced matrix metalloproteinase-9 upregulation. Biochem Biophys Res Commun. 2005 Oct 21;336(2):716-22.

完整储备液配制表:

* 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。

可选溶剂	质量 溶剂体积 浓度	1 mg	5 mg	10 mg	25 mg
DMSO	1 mM	3.0424 mL	15.2119 mL	30.4238 mL	76.0595 mL
	5 mM	0.6085 mL	3.0424 mL	6.0848 mL	15.2119 mL
	10 mM	0.3042 mL	1.5212 mL	3.0424 mL	7.6060 mL
	15 mM	0.2028 mL	1.0141 mL	2.0283 mL	5.0706 mL
	20 mM	0.1521 mL	0.7606 mL	1.5212 mL	3.8030 mL
	25 mM	0.1217 mL	0.6085 mL	1.2170 mL	3.0424 mL
	30 mM	0.1014 mL	0.5071 mL	1.0141 mL	2.5353 mL
	40 mM	0.0761 mL	0.3803 mL	0.7606 mL	1.9015 mL
	50 mM	0.0608 mL	0.3042 mL	0.6085 mL	1.5212 mL
	60 mM	0.0507 mL	0.2535 mL	0.5071 mL	1.2677 mL
	80 mM	0.0380 mL	0.1901 mL	0.3803 mL	0.9507 mL
	100 mM	0.0304 mL	0.1521 mL	0.3042 mL	0.7606 mL