产品名称：Stattic
产品别名：Stattic

生物活性：

Description	Stattic is a potent STAT3 inhibitor. Stattic inhibits STAT3 phosphorylation (at Y705 and S727).
IC_{50} & Target	STAT3
In Vitro	Stattic inhibits STAT3 phosphorylation (Y705) in ALDH+ and D44+/CD24+ subpopulations of Panc-1 and HPAC pancreatic cancer cell lines at a higher concenration (20 μM). Stattic selectively inhibits P-STAT3 as demonstrated by the lack of inhibition of P-ERK1/2 in both ALDH+ and CD44+/CD24+ subpopulations of Panc-1 and HPAC. Stattic inhibita STAT3 downstream targets in ALDH+ and CD44+/CD24+ subpopulations of pancreatic cancer cells[1]. Stattic reduces the LPS-induced expression of ICAM-1 and VCAM-1, and STAT3 phosphorylation[2].
Solvent&Solubility	***In Vitro:***

DMSO： 50 mg/mL (236.75 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.7351 mL	23.6754 mL	47.3507 mL
	5 mM	0.9470 mL	4.7351 mL	9.4701 mL
	10 mM	0.4735 mL	2.3675 mL	4.7351 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：

——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 (11.84 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (11.84 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 (11.84 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (11.84 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。

[1]. Lin L, et al. STAT3 as a potential therapeutic target in ALDH+ and CD44+/CD24+ stem cell-like

References	pancreatic cancer cells. Int J Oncol. 2016 Oct 12. [2]. Cho YS, et al. Inhibition of STAT3 phosphorylation by sulforaphane reduces adhesion molecule expression in vascular endothelial cell. Can J Physiol Pharmacol. 2015 Nov 18:1-7.

实验参考：

Cell Assay	Pancreatic cancer stem-like cells (3,000/well in 96-well plates) are incubated with desired concentrations of compounds in triplicate at 37˚C for 72 h. MTT viability assays are done and the absorbance is read at 595 nm. [1]
References	[1]. Lin L, et al. STAT3 as a potential therapeutic target in ALDH+ and CD44+/CD24+ stem cell-like pancreatic cancer cells. Int J Oncol. 2016 Oct 12. [2]. Cho YS, et al. Inhibition of STAT3 phosphorylation by sulforaphane reduces adhesion molecule expression in vascular endothelial cell. Can J Physiol Pharmacol. 2015 Nov 18:1-7.