产品名称：Salermide
产品别名：Salermide

生物活性：

Description	Salermide is an inhibitor of Sirt1 and Sirt2; can cause strong cancer-specific apoptotic cell death.	
IC_{50} & Target	SIRT1	SIRT2
In Vitro	Salermide shows a dose-dependent inhibition that rises to 80% at 90 μM and 25 μM against Sirt1 and Sirt2, respectively. Salermide can prompt tumour-specific cell death in a wide range of human cancer cell lines derived from leukaemia (MOLT4, KG1A, K562), lymphoma (Raji), colon (SW480) and breast (MDA-MB-231). Incubation with 100 μM Salermide alone resulted in an increase of cytosolicactivated caspase 3 and a decrease of mitochondrialcytochrome. Salermide alone can induce apoptosis through both extrinsic and intrinsic pathways. Salermide had several antitumorigenic advantages over the earlier described class III HDAC inhibitors: firstly, it mimics the universal proapoptotic effect on cancer samples exhibited by the classical class I, II and IV HDAC inhibitors, and secondly, its proapoptotic effect is cancer-specific[1].	
In Vivo	Salermide is well tolerated by mice at concentrations up to 100 μM. Salermide's mechanism of action in vivo is specifically mediated by Sirt1. Intraperitoneal feeding of Salermide has no apparent toxicity in nude mice[1].	

Solvent&Solubility

In Vitro:

DMSO : ≥ 50 mg/mL (126.75 mM)

H_2O : < 0.1 mg/mL (insoluble)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.5350 mL	12.6752 mL	25.3505 mL
	5 mM	0.5070 mL	2.5350 mL	5.0701 mL
	10 mM	0.2535 mL	1.2675 mL	2.5350 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 →90% corn oil

Solubility: ≥ 2.5 mg/mL (6.34 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (6.34 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]. Lara E, et al. Salermide, a Sirtuin inhibitor with a strong cancer-specific proapoptotic effect. Oncogene. 2009 Feb 12;28(6):781-91.

实验参考：

Cell Assay	Cell lines (SW480, MDA-MB-231, MOLT4, KG1A, K562 and Raji) are used in the study. Cell viability is determined using the 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide assay. IC50 index is calculated using four Salermide concentrations (25, 50, 75 and 100 μM) for 24 h. The percentage of apoptotic cells is determined with the FACSCalibur apparatus[1].
Animal Administration	Mice: To assess possible adverse effects of Salermide in vivo. To do this, a group of 10 nude mice are intraperitoneal injected 100 μL of 100 μM of Salermide to over 34 days. Diet consumption, body-weight gain, and postural and behavioural changes are monitored throughout the study[1].
References	[1]. Lara E, et al. Salermide, a Sirtuin inhibitor with a strong cancer-specific proapoptotic effect. Oncogene. 2009 Feb 12;28(6):781-91.