

产品名称: **Scriptaid**  
 产品别名: **Scriptaid**

生物活性:						
Description		Scriptaid is a potent histone deacetylase (HDAC) inhibitor, used in cancer research.				
IC <sub>50</sub> & Target		HDAC				
In Vitro		Scriptaid (1 µg/mL) treatment inhibits cell growth in breast cancer cell lines, results in increased accumulation of both acetyl H3 and acetyl H4 proteins in MDA-MB-231, MDA-MB-435, and Hs578t cells. Scriptaid also inhibits cell growth of MDA-MB-231, MDA-MB-435, and Hs578t cell lines, with IC50s of 0.5-1.0 µg/mL. Scriptaid (0.1-1.0 µg/mL) induces ER and PR mRNA expression in a dose dependent manner; when it is combined with AZA, they enhance ER expression and induce a functional ER protein[1]. Scriptaid and SAHA preferentially inhibit the Class I histone deacetylases, hdac1, 2, and 3. Scriptaid is a potent anti-T. gondii compound with low cytotoxicity, and the IC50 is 39 nM. Scriptaid has atypical effects in T. gondiinfected HS68 cells[2]. Scriptaid inhibits the growth of HeLa cells with IC50 of 2 µM at 48 h in a dose-dependent manner. Scriptaid also affects cell-cycle and apoptosis[3].				
In Vivo		Scriptaid (3.5 µg/g mouse, i.p.) clearly inhibits tumor growth in a xenograft mouse model[1].				
Solvent&Solubility		<b>In Vitro:</b> <b>DMSO : 100 mg/mL (306.42 mM; Need ultrasonic)</b>				
		<div>Preparing Stock Solutions</div>	<div>Solvent / Mass / Concentration</div>	1 mg	5 mg	10 mg
			1 mM	3.0642 mL	15.3210 mL	30.6419 mL
			5 mM	0.6128 mL	3.0642 mL	6.1284 mL
			10 mM	0.3064 mL	1.5321 mL	3.0642 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℃, 6 months; -20℃, 1 month。-80℃ 储存时，请在 6 个月内使用，-20℃ 储存时，请在 1 个月内使用。				
		<b>In Vivo:</b>				
		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 <b>In Vitro</b> 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 (7.66 mM); Clear solution						
此方案可获得 ≥ 2.5 mg/mL (7.66 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% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (7.66 mM); Clear solution						
此方案可获得 ≥ 2.5 mg/mL (7.66 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 900 µL 20% 的 SBE-β-CD 生理						

	<p>盐水水溶液中，混合均匀。</p> <p>3.请依序添加每种溶剂： 10% DMSO →90% corn oil</p> <p>Solubility: <math>\geq 2.5</math> mg/mL (7.66 mM); Clear solution</p> <p>此方案可获得 <math>\geq 2.5</math> mg/mL (7.66 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。</p> <p>以 1 mL 工作液为例，取 100 <math>\mu</math>L 25.0 mg/mL 的澄清 DMSO 储备液加到 900 <math>\mu</math>L 玉米油中，混合均匀。</p>
References	<p>[1]. Keen JC, et al. A novel histone deacetylase inhibitor, scriptaid, enhances expression of functional estrogen receptor alpha (ER) in ER negative human breast cancer cells in combination with 5-aza 2'-deoxycytidine. Breast Cancer Res Treat. 2003 Oct;81(3):177-86.</p> <p>[2]. Strobl JS, et al. Scriptaid and suberoylanilide hydroxamic acid are histone deacetylase inhibitors with potent anti-Toxoplasma gondii activity in vitro. J Parasitol. 2007 Jun;93(3):694-700.</p> <p>[3]. Janaki Ramaiah M, et al. Scriptaid cause histone deacetylase inhibition and cell cycle arrest in HeLa cancer cells: A study on structural and functional aspects. Gene. 2017 Sep 5;627:379-386.</p>
实验参考：	
Cell Assay	<p>IC50 concentrations of Scriptaid are determined in MDA-MB-231, MDA-MB-435 and Hs578t cells by MTT assay. For cell growth assays, MDA-MB-231, MDA-MB-435, and Hs578t cells are plated at a cell density of 5000 cells/well in 12 well plates and treated with 1.0 <math>\mu</math>g/mL Scriptaid for up to 3 days. Cells are counted daily using a Coulter counter. Percent growth inhibition is determined by comparison of treated and untreated cells[1].</p>
Animal Administration	<p>Four to six week old athymic female nude mice are housed under laminar flow hoods in an environmentally controlled pathogen free animal facility for the duration of experiments. Mice are injected with <math>2 \times 10^6</math> MDA-MB-231 human breast cancer cells into each flank. Tumors are allowed to grow to approximately 0.1 cm<sup>3</sup> in diameter before treatment. Mice are then treated with Scriptaid (3.5 <math>\mu</math>g/g mouse), TSA (0.5 <math>\mu</math>g/g mouse), or DMSO vehicle intraperitoneally for five consecutive days with 2 days rest each week for a total of 4 weeks. Individual tumor measurements are recorded from each flank weekly[1].</p>
References	<p>[1]. Keen JC, et al. A novel histone deacetylase inhibitor, scriptaid, enhances expression of functional estrogen receptor alpha (ER) in ER negative human breast cancer cells in combination with 5-aza 2'-deoxycytidine. Breast Cancer Res Treat. 2003 Oct;81(3):177-86.</p> <p>[2]. Strobl JS, et al. Scriptaid and suberoylanilide hydroxamic acid are histone deacetylase inhibitors with potent anti-Toxoplasma gondii activity in vitro. J Parasitol. 2007 Jun;93(3):694-700.</p> <p>[3]. Janaki Ramaiah M, et al. Scriptaid cause histone deacetylase inhibition and cell cycle arrest in HeLa cancer cells: A study on structural and functional aspects. Gene. 2017 Sep 5;627:379-386.</p>