

产品名称: **SRT 2104**

产品别名: **SRT 2104**

生物活性:

Description	SRT 2104 is a first-in-class, highly selective and brain-permeable activator of the NAD+ dependent deacetylase Sirt1, increases Sirt1 protein, but shows no effect on Sirt1 mRNA. Used in the research of diabetes mellitus and Huntington's disease[1][2][3].				
IC ₅₀ & Target	SIRT1				
In Vivo	SRT 2104 (100 mg/kg/day, supplemented in diet for 24 weeks) increases SIRT1 protein without altering Sirt1 mRNA in diabetic mice[2].				
	SRT 2104 (100 mg/kg/day, supplemented in diet for 24 weeks) decreases testicular oxidative stress, activation of apoptotic signaling, and ER stress in diabetic mice[2].				
	SRT 2104 (0.5%; for 18 weeks) improves motor function and increases survival in N171-82Q HD mice[3].				
	Animal Model:	Male C57BL/6 mice (8-week-old)[2]			
	Dosage:	100 mg/kg/day			
	Administration:	Supplemented in diet for 24 weeks			
	Result:	Enhanced SIRT1 protein without elevating Sirt1 mRNA level. Attenuated diabetes mellitus (DM)-induced oxidative stress, apoptotic signaling, and ER stress.			
	Animal Model:	WT and N171-82Q HD mice (6 weeks old)[3]			
	Dosage:	0.5%			
Administration:	0.5% SRT 2104 containing diet for 6, 12, 18 weeks				
Result:	Ameliorated motor deficits and increased survival in N171-82Q HD mice.				
Solvent&Solubility	In Vitro:				
	DMSO : 5 mg/mL (9.68 mM; Need ultrasonic)				
	H ₂ O : < 0.1 mg/mL (insoluble)				
		<div>Solvent / Mass / Concentration</div>	1 mg	5 mg	10 mg
	Preparing	1 mM	1.9356 mL	9.6779 mL	19.3558 mL
	Stock Solutions	5 mM	0.3871 mL	1.9356 mL	3.8712 mL
		10 mM	---	---	---
	*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: ≥ 0.5 mg/mL (0.97 mM); Clear solution					

	<p>此方案可获得 ≥ 0.5 mg/mL (0.97 mM, 饱和度未知) 的澄清溶液。</p> <p>以 1 mL 工作液为例, 取 100 μL 5.0 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。</p> <p>2. 请依序添加每种溶剂: 10% DMSO \rightarrow 90% corn oil</p> <p>Solubility: ≥ 0.5 mg/mL (0.97 mM); Clear solution</p> <p>此方案可获得 ≥ 0.5 mg/mL (0.97 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 μL 5.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 玉米油中, 混合均匀。</p>
References	<p>[1]. Hoffmann E, et al. <u>Pharmacokinetics and tolerability of SRT2104, a first-in-class small molecule activator of SIRT1, after single and repeated oral administration in man.</u></p> <p>[2]. Jiao D, et al. <u>MicroRNA-34a targets sirtuin 1 and leads to diabetes-induced testicular apoptotic cell death.</u> J Mol Med (Berl). 2018 Sep;96(9):939-949.</p> <p>[3]. Jiang M, et al. <u>Sirtuin 1 activator SRT2104 protects Huntington's disease mice.</u> Ann Clin Transl Neurol. 2014 Dec;1(12):1047-52.</p>



源叶生物