

产品名称: **Romidepsin (FK228, Depsipeptide)**

产品别名: **Romidepsin; 罗米地辛**

生物活性:				
Description	Romidepsin (FK 228) is a Histone deacetylase (HDAC) inhibitor with anti-tumor activities. Romidepsin (FK 228) inhibits HDAC1, HDAC2, HDAC4, and HDAC6 with IC50s of 36 nM, 47 nM, 510 nM and 1.4 μM, respectively[1]. Romidepsin (FK 228) is produced by Chromobacterium violaceum, induces cell G2/M phase arrest and apoptosis[2].			
IC ₅₀ & Target	HDAC1	HDAC2	HDAC4	HDAC6
	36 nM (IC ₅₀)	47 nM (IC ₅₀)	510 nM (IC ₅₀)	14000 nM (IC ₅₀)
In Vitro	Romidepsin (0-72 hours; 0-80 nM) inhibits proliferation of HCC cells in dose-dependent manner[2].			
	Romidepsin (0-48 hours; 0-60 nM) leads to a time- and dose-dependent induction of cell cycle arrest in the G2/M phase in HCC cells[2].			
	Romidepsin (0-48 hours; 0-60 nM) promotesapoptosis in HCC cells, increases c-caspase-3, c-caspase-9, and c-PARP protein expression[2].			
	Cell Proliferation Assay[2]			
	Cell Line:	HCC cells		
	Concentration:	0 nM; 10 nM; 20 nM; 30 nM; 40 nM; 50 nM; 60 nM; 70 nM; 80 nM		
	Incubation Time:	0 hours; 12 hours; 24 hours; 48 hours; 72 hours		
	Result:	Inhibited HCC cells proliferation.		
	Cell Cycle Analysis[2]			
	Cell Line:	HCC cells		
	Concentration:	0 nM; 15 nM; 30 nM; 60 nM		
	Incubation Time:	12 hours;24 hours; 48 hours		
	Result:	Caused a G2/M arrest.		
	Western Blot Analysis[2]			
	Cell Line:	HCC cells		
	Concentration:	0 nM; 15 nM; 30 nM; 60 nM		
	Incubation Time:	12 hours;24 hours; 48 hours		
	Result:	Increaesd c-caspase-3, c-caspase-9, and c-PARP expression in HCC cells.		
In Vivo	Romidepsin (intraperitoneal injection; 0.5 and 1 mg/kg; every 3 day; 21 days) inhibited the tumor growth, reveals a higher expression of p-cdc25C, ki67, c-caspase-3 and c-PARP, and a lower expression of Ki-67 in Romidepsin treated tumors [2].			
	Animal Model:	Nude mice with Huh7 cells[2]		
	Dosage:	0.5 and 1 mg/kg		
	Administration:	Intraperitoneal injection; 0.5 and 1 mg/kg; every 3 day; 21 days		
	Result:	Suppressed tumor growth in mouse xenograft models.		
In Vitro:				
DMSO : 50 mg/mL (92.47 mM; Need ultrasonic)				
Preparing Stock Solutions	<div>Solvent / Mass / Concentration</div>	1 mg	5 mg	10 mg
	1 mM	1.8495 mL	9.2473 mL	18.4945 mL
	5 mM	0.3699 mL	1.8495 mL	3.6989 mL

		10 mM	0.1849 mL	0.9247 mL	1.8495 mL
Solvent&Solubility	<p>*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。</p> <p>*该产品在溶液状态不稳定，建议您现用现配，即刻使用。</p> <p><i>In Vivo:</i></p> <p>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：</p> <p>——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</p> <p>1.请依序添加每种溶剂： 10% DMSO→40% PEG300 →5% Tween-80 → 45% saline Solubility: ≥ 2.08 mg/mL (3.85 mM); Clear solution</p> <p>此方案可获得 ≥ 2.08 mg/mL (3.85 mM, 饱和度未知) 的澄清溶液。</p> <p>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 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→ 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (4.62 mM); Clear solution</p> <p>此方案可获得 ≥ 2.5 mg/mL (4.62 mM, 饱和度未知) 的澄清溶液。</p> <p>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 Solubility: ≥ 2.5 mg/mL (4.62 mM); Clear solution</p> <p>此方案可获得 ≥ 2.5 mg/mL (4.62 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 25.0 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]. Furumai R, et al. FK228 (depsipeptide) as a natural prodrug that inhibits class I histone deacetylases. <u>Cancer Res.</u> 2002 Sep 1;62(17):4916-21.</p> <p>[2]. Sun WJ, et al. Romidepsin induces G2/M phase arrest via Erk/cdc25C/cdc2/cyclinB pathway and apoptosis induction through JNK/c-Jun/caspase3 pathway in hepatocellular carcinoma cells. <u>Biochem Pharmacol.</u> 2017 Mar 1;127:90-100.</p>				