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产品名称: **N6-呋喃甲基腺苷**
产品别名: **Kinetin riboside; N6-Furfuryladenosine**

生物活性:

Description	Kinetin riboside, a cytokinin analog, can induce apoptosis in cancer cells. It inhibits the proliferation of HCT-15 cells with an IC ₅₀ of 2.5 μM.				
IC ₅₀ & Target	IC50: 2.5 μM (HCT-15 cells)[1]				
In Vitro	Kinetin riboside displays antiproliferative and apoptogenic activity against various human cancer cell lines. Kinetin riboside is able to inhibit the proliferation in HCT-15 human colon cancer cells in a dose-dependent manner (IC50=2.5 μM)[1]. Kinetin riboside induces apoptosis in HeLa and mouse melanoma B16F-10 cells. Kinetin riboside disrupts the mitochondrial membrane potential and induces the release of cytochrome c and activation of caspase-3. Bad are up-regulated while Bcl-2 is down-regulated under kinetin riboside exposure[2].				
In Vivo	Kinetin riboside significantly suppresses tumor growth. The most effective anti-melanoma response is elicited at 40 mg/kg[2].				
Solvent&Solubility	In Vitro: DMSO : ≥ 29 mg/mL (83.49 mM) * "≥" means soluble, but saturation unknown.				
	<div>Preparing Stock Solutions</div>	<div>SolventMassConcentration</div>	1 mg	5 mg	10 mg
		1 mM	2.8791 mL	14.3955 mL	28.7911 mL
		5 mM	0.5758 mL	2.8791 mL	5.7582 mL
		10 mM	0.2879 mL	1.4396 mL	2.8791 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。				
	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 (7.20 mM); Clear solution					
此方案可获得 ≥ 2.5 mg/mL (7.20 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 (7.20 mM); Clear solution					



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	<p>此方案可获得 ≥ 2.5 mg/mL (7.20 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 生理盐水溶液中, 混合均匀。</p> <p>3.请依序添加每种溶剂: 10% DMSO \rightarrow 90% corn oil</p> <p>Solubility: ≥ 2.5 mg/mL (7.20 mM); Clear solution</p> <p>此方案可获得 ≥ 2.5 mg/mL (7.20 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]. Rajabi M, et al. Antiproliferative activity of kinetin riboside on HCT-15 colon cancer cell line. Nucleosides Nucleotides Nucleic Acids. 2012;31(6):474-81.</p> <p>[2]. Choi BH, et al. Kinetin riboside preferentially induces apoptosis by modulating Bcl-2 family proteins and caspase-3 in cancer cells. Cancer Lett. 2008 Mar 8;261(1):37-45.</p>
实验参考:	
Cell Assay	<p>HeLa and mouse melanoma B16F-10 cells are treated with 5, 10, 20 μM kinetin riboside for 48 h. 15 μL of MTT solution (5 mg/mL) is added to each well and cells are maintained for 4 h at 37°C. Hundred microlitres of solubilizing solution is then added. After an overnight incubation at room temperature, absorbance at 490 nm is measured[2].</p>
Animal Administration	<p>Mice: Male C57BL/6 mice are injected B16 F-10 cells. After 5 days for tumor growth, kinetin riboside (10, 20, 40 mg/kg) is injected to tumor mass directly. Drug injection is performed once a 3 days for three times. After third injection of drug, mice are kept for 3 days with no injection and tumor mass is removed from each mouse and weighed[2].</p>
References	<p>[1]. Rajabi M, et al. Antiproliferative activity of kinetin riboside on HCT-15 colon cancer cell line. Nucleosides Nucleotides Nucleic Acids. 2012;31(6):474-81.</p> <p>[2]. Choi BH, et al. Kinetin riboside preferentially induces apoptosis by modulating Bcl-2 family proteins and caspase-3 in cancer cells. Cancer Lett. 2008 Mar 8;261(1):37-45.</p>