



上海源叶生物科技有限公司
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产品名称: **MK-8745**
产品别名: **MK-8745**

生物活性:				
Description	MK-8745 is an aurora A kinase inhibitor with an IC50 of 0.6 nM.			
IC₅₀ & Target	Aurora A			
	0.6 nM (IC50)			
In Vitro	MK-8745 induces apoptotic cell death in a p53-dependent manner when tested in vitro in cell lines of multiple lineages. Exposure of p53 wild-type cells to MK-8745 results in the induction of p53 phosphorylation (ser15) and an increase in p53 protein expression[1]. 1 μ M of MK-8745 exposure for 24 h induces cell cycle arrest in all NHL cells, with variable degrees of G2/M arrest. Z138C cells are highly sensitive to MK-8745 (1 μ M) treatment and induces an approximate 5.5-fold increase in the G2/M phase cell population by 96 h. MK-8745 treatment inhibits phosphorylation of Aurora-A in Granta 519 and Z138C cells, while Akata and JVM2 has no effect. MK-8745 specifically inhibits Aurora-A specific function. MK-8745 treatment leads to apoptotic cell death[2].			
Solvent&Solubility	In Vitro: DMSO : $\geq$ 100 mg/mL (231.53 mM) * " $\geq$ " means soluble, but saturation unknown.			
	Preparing Stock Solutions	Solvent	Mass	Concentration
		1 mg	5 mg	10 mg
		1 mM	2.3153 mL	11.5765 mL
		5 mM	0.4631 mL	2.3153 mL
		10 mM	0.2315 mL	1.1576 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→40% PEG300 →5% Tween-80 → 45% saline Solubility: $\geq$ 2.5 mg/mL (5.79 mM); Clear solution 此方案可获得 $\geq$ 2.5 mg/mL (5.79 mM, 饱和度未知) 的澄清溶液。 以 1 mL 工作液为例, 取 100 μ L 25.0 mg/mL 的澄清 DMSO 储备液加到 400 μ L PEG300 中, 混合均匀; 向上述体系中加入 50 μ L Tween-80, 混合均匀; 然后继续加入 450 μ L 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: $\geq$ 2.5 mg/mL (5.79 mM); Clear solution			



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	此方案可获得 ≥ 2.5 mg/mL (5.79 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 生理盐水水溶液中, 混合均匀。 3.请依序添加每种溶剂: 10% DMSO $\rightarrow$ 90% corn oil Solubility: ≥ 2.5 mg/mL (5.79 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (5.79 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]. Jayasree S Nair et al. The induction of polyploidy or apoptosis by the Aurora A kinase inhibitor MK8745 is p53-dependent. [2]. Aparajita Chowdhury et al. A novel Aurora kinase A inhibitor MK-8745 predicts TPX2 as a therapeutic biomarker in non-Hodgkin lymphoma cell lines. Leuk Lymphoma, 2012 Mar, 53(3):462-71.
实验参考:	
Cell Assay	A total of 10000 cells are plated per well in a 96-well plate and treated with MK-8745 for varying time points starting 24 h after plating. Cell viability is measured by the MTT assay[2].
References	[1]. Jayasree S Nair et al. The induction of polyploidy or apoptosis by the Aurora A kinase inhibitor MK8745 is p53-dependent. [2]. Aparajita Chowdhury et al. A novel Aurora kinase A inhibitor MK-8745 predicts TPX2 as a therapeutic biomarker in non-Hodgkin lymphoma cell lines. Leuk Lymphoma, 2012 Mar, 53(3):462-71.

源叶生物