



上海源叶生物科技有限公司
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产品名称: **R162**
产品别名: **R162**

生物活性:				
Description	R162 is a potent inhibitor of glutamate dehydrogenase 1 (GDH1/GLUD1), with anti-cancer properties.			
In Vitro	Inhibition of GDH1 activity by R162 treatment results in decreased intracellular fumarate levels, attenuated GPx activity, increased ROS levels, and reduced cell proliferation in H1299 and MDA-MB231 cells, which can be significantly rescued by methyl- α -KG treatment as well as by antioxidant NAC. R162 inhibits cell proliferation and tumor growth potential of human cancer cells[1].			
In Vivo	R162 (30 mg/kg/day, i.p.) does not result in a significant histopathological change between the vehicle-treated and R162-treated groups, nor alters complete blood counts, or hematopoietic properties in xenograft tumor mouse models. R162 (20 mg/kg/day) results in significantly decreased tumor growth and masses in mice compared with control mice and effectively inhibits GDH1 activity in resected tumors from xenograft nude mice[1].			
Solvent&Solubility	In Vitro: DMSO : ≥ 100 mg/mL (378.39 mM) * "≥" means soluble, but saturation unknown.			
	Preparing Stock Solutions	Solvent	Mass	
		Concentration		
			1 mg	5 mg
				10 mg
		1 mM	3.7839 mL	18.9193 mL
		5 mM	0.7568 mL	3.7839 mL
		10 mM	0.3784 mL	1.8919 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: 1 mg/mL (3.78 mM); Suspended solution; Need ultrasonic 此方案可获得 1 mg/mL (3.78 mM)的均匀悬浊液, 悬浊液可用于口服和腹腔注射。 以 1 mL 工作液为例, 取 100 μ L 10.0 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% corn oil Solubility: ≥ 1 mg/mL (3.78 mM); Clear solution			



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	此方案可获得 $\geq 1 \text{ mg/mL}$ (3.78 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 10.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 玉米油中, 混合均匀。
References	[1]. Jin L, et al. Glutamate dehydrogenase 1 signals through antioxidant glutathione peroxidase 1 to regulate redox homeostasis and tumor growth. Cancer Cell. 2015 Feb 9;27(2):257-70.



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