

产品名称: **RSL3**
 产品别名: **(1S,3R)-RSL3**

生物活性:						
Description		(1S,3R)-RSL3 is an inhibitor of glutathione peroxidase 4 (GPX4), reduces the expression of GPX4 protein, and induces ferroptotic death of head and neck cancer cell. (1S,3R)-RSL3 increases the expression of p62 and Nrf2 and inactivates Keap1 in HN3-rslR cells[1].				
IC ₅₀ & Target		Glutathione peroxidase 4[1]				
In Vitro		(1S,3R)-RSL3 (0-8 μM, 72 hours) potently reduces the viability of HN3 cells, with IC50s of 0.48 μM in HN3 and 5.8 μM in HN3-rslR cells, respectively[1].				
		(1S,3R)-RSL3 (0-8 μM, 24 hours) reduces the expression of GPX4 protein, increases the expression of p62 and Nrf2 and inactivates Keap1 in HN3-rslR cells[1].				
		Cell Viability Assay[1]				
		Cell Line:	HN3 cells, HN3-rslR cells			
		Concentration:	0-8 μM			
		Incubation Time:	72 hours			
		Result:	Showed IC ₅₀ s of 0.48 μM in HN3 and 5.8 μM in HN3-rslR cells, respectively[1].			
		Western Blot Analysis[1]				
		Cell Line:	HN3-rslR cells			
		Concentration:	0-8 μM			
		Incubation Time:	24 hours			
Result:	Inhibited GPX4 expression, increased p62 and Nrf2 levels, and decreased Keap1 levels.					
In Vivo		(1S,3R)-RSL3 (100 mg/kg, Intratumorally twice per week for 20 days) significantly inhibits the growth of tumor in combination with trigonelline in mice bearing HN3R cells.				
		Animal Model:	Ten-week-old athymic BALB/c male nude mice (nu/nu) bearing HN3R cells[1]			
		Dosage:	100 mg/kg in combination with trigonelline (50 mg/kg)			
		Administration:	Intratumorally twice per week for 20 days			
		Result:	Significantly reduced the volume of tumor combined with trigonelline in mice.			
		In Vitro:				
		DMSO : 100 mg/mL (226.82 mM; Need ultrasonic)				
		H ₂ O : < 0.1 mg/mL (insoluble)				
		Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
			1 mM	2.2682 mL	11.3410 mL	22.6819 mL
			5 mM	0.4536 mL	2.2682 mL	4.5364 mL
			10 mM	0.2268 mL	1.1341 mL	2.2682 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						

Solvent&Solubility	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 (5.67 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (5.67 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% corn oil Solubility: ≥ 2.5 mg/mL (5.67 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (5.67 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]. Shin D, et al. Nrf2 inhibition reverses resistance to GPX4 inhibitor-induced ferroptosis in head and neck cancer. Free Radic Biol Med. 2018 Dec;129:454-462.

源叶生物