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产品名称：
2,2'-(4,4'-(4,4'-methylenebis(2-chloro-4,1-phenylene))bis(azanediyl)bis(oxomethylene)bis(azanediyl)bis(4,1-phenylene))bis(oxy)bi
产品别名：LR-90

生物活性：

Description	LR-90 is an advanced glycation end product (AGE) inhibitor, inhibits inflammatory responses in human monocytes[1]. LR-90 is also used in the research of diabetic animal model[2].	
IC_{50} & Target	AGE[1]	
In Vitro	LR-90 (0, 25, 50, 100, and 200 μM) inhibits RAGE, MCP-1, COX-2, IP-10 and NOX2 mRNA expression in THP-1 cells in a dose-dependent manner, after pretreatment 1 h befor S100b stimulatation for 4 hours[1]. LR-90 (0, 25, 50, 100, and 200 μM) dose-dependently and significantly blocks THP-1 cells adherence to endothelial cells after pretreatment 1 h befor S100b stimulatation for 24 hours[1]. LR-90 (0, 25, 50, 100, and 200 μM, for 24 hours) shows no effect on the cell viability of THP-1 cells[1].	
	Cell Viability Assay[1]	
	Cell Line:	THP-1 cells
	Concentration:	0, 25, 50, 100, and 200 μM
	Incubation Time:	24 hours
	Result:	Showed no cytotoxicity to THP-1 cells.
	RT-PCR[1]	
	Cell Line:	THP-1 cells
	Concentration:	0, 25, 50, 100, and 200 μM
	Incubation Time:	One hour before S100b addition for 4 hours
	Result:	Dose-dependently inhibited mRNA expression of RAGE, MCP-1, COX-2, IP-10, and NOX2 stimulated with S100b.
In Vivo	LR-90 (50 mg/L, p.o. for 27 weeks) significantly reduces plasma lipids, modestly affects hyperglycaemia in ZDF rats[2]. LR-90 (50 mg/L) decreases renal AGE, AGER and lipid peroxidation[2].	
	Animal Model:	Male ZDF rats (13 to 40 weeks)[2]
	Dosage:	50 mg/L
	Administration:	P.O. for 27 weeks
	Result:	Significantly reduced plasma triacylglycerol and cholesterol by ~55% and ~30%, respectively. Modestly affected hyperglycaemia and blood pressure. Lowered the body weight.

In Vitro:

DMSO : ≥ 100 mg/mL (**140.93 mM**)

H_2O : < 0.1 mg/mL (insoluble)

* "≥" means soluble, but saturation unknown.

	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
Preparing	1 mM	1.4093 mL	7.0465 mL	14.0930 mL

<table>
<tr><td rowspan="3">Solvent&Solubility</td><td rowspan="2">Stock Solutions</td><td>5 mM</td><td>0.2819 mL</td><td>1.4093 mL</td><td>2.8186 mL</td></tr>
<tr><td>10 mM</td><td>0.1409 mL</td><td>0.7047 mL</td><td>1.4093 mL</td></tr>
<tr><td colspan="5">*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: ≥ 2.5 mg/mL (3.52 mM); Clear solution
此方案可获得 ≥ 2.5 mg/mL (3.52 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 (3.52 mM); Clear solution
此方案可获得 ≥ 2.5 mg/mL (3.52 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。</td></tr>
<tr><td>References</td><td colspan="5">[1]. Figarola JL, et al. Anti-inflammatory effects of the advanced glycation end product inhibitor LR-90 in human monocytes. Diabetes. 2007 Mar;56(3):647-55.
[2]. Figarola JL, et al. LR-90 prevents dyslipidaemia and diabetic nephropathy in the Zucker diabetic fatty rat. Diabetologia. 2008 May;51(5):882-91.</td></tr>
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