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产品名称：ISO 1
产品别名：MIF Antagonist

生物活性：

Description	ISO-1 is a macrophage migration inhibitory factor (MIF) antagonist with an IC_{50} of 7 μM.
IC_{50} & Target	IC50: 7 μM (MIF)[1]
In Vitro	ISO-1 (0.1-20 μM; 16 hours) has a slight inhibitory effect on Cox-2 secretion without the addition of recombinant MIF[1].
	Western Blot Analysis[1]
	Cell Line: RAW 264.7 macrophage cells
	Concentration: 0.1μM，1μM，10μM，20μM
	Incubation Time: 16 hours
	Result: Suppressed Cox-2 secretion.
In Vivo	ISO-1 (injected intraperitoneally; 3.5-35 mg/kg; twice daily; 2 weeks) improves the survival rate from lethal endotoxemia and shows the anti-inflammatory effect[2]. ISO-1 (intraperitoneal injection; 35 mg/kg; twice daily; 3 days) causes a significant reduction in average implant size and decreases Flk1 expression in implants[3].
	Animal Model: C57Bl/6 $MIF^{+/+}$ and $MIF^{-/-}$ mice[2]
	Dosage: 3.5-35 mg/kg
	Administration: Injected intraperitoneally; 3.5-35 mg/kg; twice a day ; 2 weeks
	Result: Was protective against lethal sepsis.
	Animal Model: Female C57BL/6-Tg(ACTB-EGFP)1Osb/J mice[3]
	Dosage: 35 mg/kg
	Administration: Intraperitoneal injection; 35 mg/kg; twice daily; 3 days
	Result: Reduced average endometriotic implant size.

In Vitro:

DMSO : 50 mg/mL (212.55 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.2510 mL	21.2549 mL	42.5098 mL
	5 mM	0.8502 mL	4.2510 mL	8.5020 mL
	10 mM	0.4251 mL	2.1255 mL	4.2510 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：

Solvent&Solubility	——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 (10.63 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (10.63 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 (10.63 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (10.63 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 →90% corn oil Solubility: ≥ 2.5 mg/mL (10.63 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (10.63 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]. Lubetsky JB, et al. The tautomerase active site of macrophage migration inhibitory factor is a potential target for discovery of novel anti-inflammatory agents. J Biol Chem. 2002 Jul 12;277(28):24976-82. [2]. Al-Abed Y, et al. ISO-1 binding to the tautomerase active site of MIF inhibits its pro-inflammatory activity and increases survival in severe sepsis. J Biol Chem. 2005 Nov 4;280(44):36541-4. [3]. Nothnick WB, et al. Inhibition of macrophage migration inhibitory factor reduces endometriotic implant size in mice with experimentally induced disease. J Endometr. 2011 Sep 30;3(3):135-142.