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产品名称：伊洛前列素
产品别名：Iloprost；Ciloprost; ZK 36374

生物活性：

Description

Iloprost (ZK 36374) is a synthetic analogue of prostacyclin PGI2. Target: Iloprost is a stable prostacyclin analog commonly employed in the treatment of peripheral vascular disease and also indicated in the treatment of patients affected by systemic sclerosis (SSc) in the presence of severe Raynaud's phenomenon (RP). [1] Iloprost dilates systemic and pulmonary arterial vascularbeds. Iloprost also affects platelet aggregation but the relevance of this effect to the treatment of pulmonary hypertension is unknown. The two diastereoisomers of iloprost differ in their potency in dilating blood vessels, with the 4S isomer substantially more potent than the 4R isomer.[2] Iloprost is a stable carbacyclin derivative of prostacyclin, was studied during electrically-induced coronary artery thrombosis in the open chest anesthetized pig. Infusion of ZK 36374 (100 ng/kg/min, n = 6) had no effect on heart rate and cardiac output, but caused a 20% reduction in mean arterial blood pressure by peripheral vasodilation. In animals receiving solvent or no drug prior to thrombosis induction, the time to occlusive coronary artery thrombosis (TOT) was 30 +/- 2 minutes (mean +/- SEM, n = 17). Pretreatment with an i.v. infusion of ZK 36374 (100 ng/kg/min) prolonged TOT by 50% to 47 +/- 7 minutes (p less than 0.005, n = 6). This prolongation of TOT was not due to the lower blood pressure in the ZK 36374 group, as dihydralazine in a dose that lowered arterial blood pressure to the same extent had no effect on TOT (32 +/- 4 minutes, n = 4). The results indicate that ZK 36374 may be useful in delaying (or preventing) occlusive coronary artery thrombi. [3]

Solvent&Solubility

In Vitro:

DMSO： ≥ 100 mg/mL (277.40 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.7740 mL	13.8700 mL	27.7400 mL
	5 mM	0.5548 mL	2.7740 mL	5.5480 mL
	10 mM	0.2774 mL	1.3870 mL	2.7740 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: ≥ 2.5 mg/mL (6.94 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (6.94 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 (6.94 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (6.94 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 (6.94 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (6.94 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]. Della Bella S, et al. Novel mode of action of iloprost: in vitro down-regulation of endothelial cell adhesion molecules. Prostaglandins Other Lipid Mediat. 2001 Jun;65(2-3):73-83. [2]. van der Giessen WJ, et al. The effect of the stable prostacyclin analogue ZK 36374 on experimental coronary thrombosis in the pig. Thromb Res. 1984 Oct 1;36(1):45-51. [3]. Addonizio VP Jr, et al. Prevention of heparin-induced thrombocytopenia during open heart surgery with iloprost (ZK36374). Surgery. 1987 Nov;102(5):796-807.