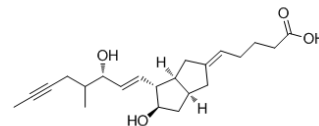


Data Sheet

Product Name:	Iloprost
Cat. No.:	HY-A0096
CAS No.:	78919-13-8
Molecular Formula:	C ₂₂ H ₃₂ O ₄
Molecular Weight:	360.49
Target:	Prostaglandin Receptor
Pathway:	GPCR/G Protein
Solubility:	10 mM in DMSO



BIOLOGICAL ACTIVITY:

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 vascular beds. 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]

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.

Caution: Product has not been fully validated for medical applications. For research use only.

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