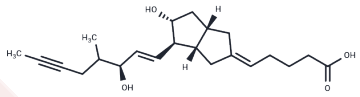
Data Sheet (Cat.No.T15560)

TargetMol

Iloprost

Chemical Properties



CAS No. : 78919-13-8

Formula: C22H32O4

Molecular Weight: 360.49

Storage: Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Iloprost (Ciloprost) is a stabilized synthetic analog of prostaglandin I2, an inhibitor of platelet aggregation and vasodilation, used in the study of cardiovascular disease.
Targets(IC50)	Endogenous Metabolite,Prostaglandin Receptor
In vitro	Iloprost is a PGI2 analog that affects the maturation and developmental competence of bovine oocytes. 0.5 μM Iloprost treatment for 22-24 hours increased the blastocyst rate and the proportion of expanded blastocysts in bovine embryos, increased the maturation rate of bovine oocytes and the rate of cumulus expansion, and increased mRNA expression of genes associated with cumulus expansion. [1] Iloprost reduces the occurrence of apoptosis in COC cells and promotes an anti-apoptotic balance in the transcription of apoptosis-related genes (BAX and BCL2). [1]
In vivo	0.3 mg/kg/min Iloprost, administered intravenously by minipump for 33 days, showed significant anti-metastatic activity in a rat model of spontaneous metastatic tumors.[3] 0.2 mg/kg/day Iloprost, administered intravenously for 10 days, attenuated the effects of hyperoxia and reduced inflammation in the lungs of neonatal mice, where cyclooxygenase-2 (COX-2/PTGS2) mediated hyperoxia-induced injury.[2]

Solubility Information

Solubility	DMSO: 80 mg/mL (221.92 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 3.3 mg/mL (9.15 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.774 mL	13.870 mL	27.740 mL
5 mM	0.5548 mL	2.774 mL	5.548 mL
10 mM	0.2774 mL	1.387 mL	2.774 mL
50 mM	0.0555 mL	0.2774 mL	0.5548 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Kowalczyk-Zieba I, et al. Iloprost affects in vitro maturation and developmental competence of bovine oocytes. Theriogenology. 2020 Nov;157:286-296.
Olave N, et al. Iloprost attenuates hyperoxia-mediated impairment of lung development in newborn mice. Am J Physiol Lung Cell Mol Physiol. 2018 Oct 1;315(4):L535-L544.
Schneider MR, et al. Effects of prostacyclin analogues in in vivo tumor models. Adv Prostaglandin Thromboxane Leukot Res. 1991;21B:901-8.
Hildebrand M. Pharmacokinetics of iloprost and cicaprost in mice. Prostaglandins. 1992 Nov;44(5):431-42.