

Product Name: Iloprost

Catalog No.: 2038

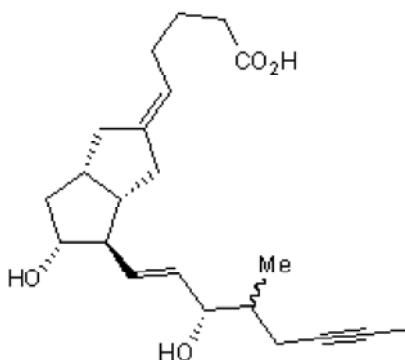
Batch No.: 7

CAS Number: 78919-13-8

IUPAC Name: (5*E*)-5-[(3*aS*,4*R*,5*R*,6*aS*)-Hexahydro-5-hydroxy-4-[(1*E*,3*S*)-3-hydroxy-4-methyl-1-octen-6-ynyl]-2(1*H*)-pentalenyldene]pentanoic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₂H₃₂O₄
Batch Molecular Weight: 360.49
Physical Appearance: Clear liquid
Solubility: Soluble in methyl acetate (supplied pre-dissolved - 5mg/ml)
Storage: Desiccate at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.2% purity
Mass Spectrum: Consistent with structure

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Prostacyclin (PGI₂) analog that binds with high affinity to IP, EP₁ and EP₃ receptors (K_i values are 11, 11, 56, 284, 619, 1035, 1870 and 6487 nM for IP, EP₁, EP₃, EP₄, FP, DP, EP₂ and TP receptors respectively). Inhibits platelet aggregation induced by collagen, thrombin and ADP (IC₅₀ values are 0.24, 0.71 and 1.07 nM respectively).

Physical and Chemical Properties:

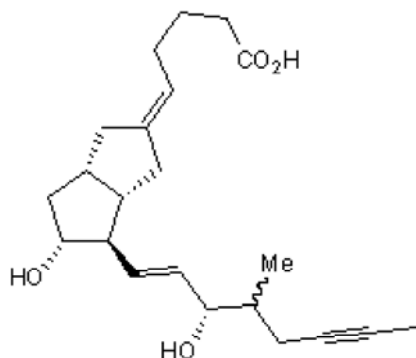
Batch Molecular Formula: C₂₂H₃₂O₄

Batch Molecular Weight: 360.49

Physical Appearance: Clear liquid

Minimum Purity: >97%

Batch Molecular Structure:



Storage: Desiccate at -20°C

Solubility & Usage Info:

Soluble in methyl acetate (supplied pre-dissolved - 5mg/ml)
This compound is supplied pre-dissolved in Methyl acetate (5mg/ml). To change the solvent, evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the chosen solvent (preferably purged with nitrogen beforehand). The solubility of Iloprost is greater than 50mM in both DMSO and Ethanol. These stock solutions can then be diluted further into aqueous solutions, as required. We do not recommend storing aqueous solutions for more than a day.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Della Bella et al (2001) Novel mode of action of iloprost: in vitro down-regulation of endothelial cell adhesion molecules. Prostaglandins Other Lipid Mediat. **65** 73. PMID: 11403500.

Abramovitz et al (2000) The utilization of recombinant prostanoid receptors to determine the affinities and selectivities of prostaglandins and related analogs. Biochim.Biophys.Acta **1483** 285. PMID: 10634944.

Schror et al (1981) The antiplatelet and cardiovascular actions of a new carbacyclin derivative (ZK 36 374) - equipotent to PGI₂ in vitro. Naunyn-Schmied.Arch.Pharmacol. **316** 252.

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