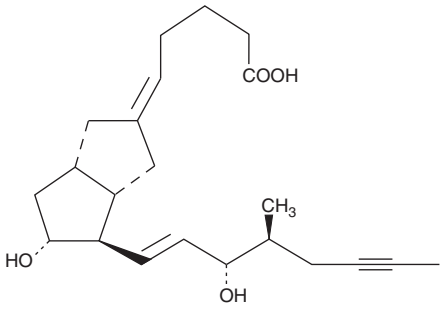
PRODUCT INFORMATION

16(S)-Iloprost

Item No. 13077

CAS Registry No.:	74843-14-4
Formal Name:	5E-[(3aS,4R,5R,6aS)-hexahydro-5-hydroxy-4-[(1E,3S,4S)-3-hydroxy-4-methyl-1-octen-6-yn-1-yl]-2(1H)-pentalenylidene]-pentanoic acid
MF:	$C_{22}H_{32}O_4$
FW:	360.5
Purity:	≥98%
Supplied as:	A solution in methyl acetate
Storage:	-20°C
Stability:	≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

16(S)-Iloprost is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of 16(S)-iloprost in ethanol and DMF is approximately 30 mg/ml and approximately 25 mg/ml in DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of 16(S)-iloprost is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of 16(S)-iloprost in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Iloprost is a second generation structural analog of prostacyclin (PGI_2) with about ten-fold greater potency than the first generation stable analogs, typified by carbaprostacyclin.[1] Iloprost binds with equal affinity to the recombinant human IP and EP_1 receptors with a K_i value of 11 nM.[2] Most preparations of iloprost contain 16(S) and 16(R) stereoisomers. 16(S)-Iloprost potently inhibits platelet aggregation with an IC_{50} value of 3.5 nM.[3]

References

1. Schrör, K., Darius, H., Matzky, R., *et al.* The antiplatelet and cardiovascular actions of a new carbacyclin derivative (ZK36374) — equipotent to PGI_2 in vitro. *Naunyn Schmiedebergs Arch. Pharmacol.* **316(3)**, 252-255 (1981).
2. Abramovitz, M., Adam, M., Boie, Y., *et al.* The utilization of recombinant prostanoid receptors to determine the affinities and selectivities of prostaglandins and related analogs. *Biochim. Biophys. Acta* **1483(2)**, 285-293 (2000).
3. Tsai, A.L., Vijjeswarapu, H., and Wu, K.K. Interaction between platelet receptor and iloprost isomers. *Biochim. Biophys. Acta* **942(2)**, 220-226 (1988).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

WARRANTY AND LIMITATION OF REMEDY
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