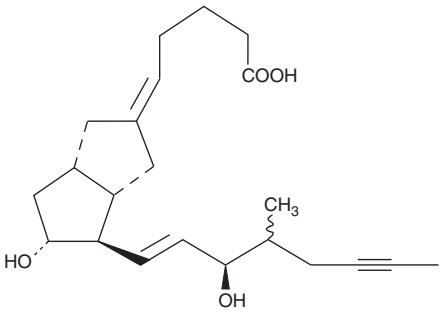
PRODUCT INFORMATION

15(R)-Iloprost

Item No. 10043

CAS Registry No.:	85026-51-3
Formal Name:	(5E)-5-[(3aS,4R,5R,6aS)-hexahydro-5-hydroxy-4-[(1E,3R)-3-hydroxy-4-methyl-1-octen-6-ynyl]-2(1H)-pentalenylidene]-pentanoic acid
MF:	$C_{22}H_{32}O_4$
FW:	360.5
Purity:	≥97%
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

15(R)-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 15(R)-iloprost in ethanol is approximately 30 mg/ml and approximately 25 mg/ml in DMSO and DMF.

15(R)-Iloprost is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of 15(R)-iloprost should be diluted with the aqueous buffer of choice. The solubility of 15(R)-iloprost in PBS (pH 7.2) is approximately 0.5 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 receptors with a K_i of 11 nM.[2] 15(R)-Iloprost is the "unnatural" or inverted C-15 epimer of iloprost. This transformation frequently attenuates the biological agonist activity of prostaglandin analogs by several orders of magnitude. There are no literature reports of the biological activity of 15(R)-iloprost.

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).

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