

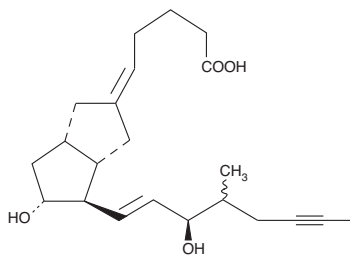
# Product Information



## 15(R)-Iloprost

Catalog No. 10043

**CAS Registry No.:** 85026-51-3  
**Formal Name:** 6,9 $\alpha$ -methylene-11 $\alpha$ ,15R-dihydroxy-16-methylprosta-5E,13E-dien-18-yn-1-oic acid  
**MF:** C<sub>22</sub>H<sub>32</sub>O<sub>4</sub>  
**FW:** 360.5  
**Purity:**  $\geq$ 97%  
**Stability:**  $\geq$ 1 year at -20°C  
**Supplied as:** A solution in methyl acetate



### Laboratory Procedures

For long term storage, we suggest that 15(R)-iloprost be stored as supplied at -20°C. It will be stable for at least one year.

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 purged with an inert gas can be used. The solubility of 15(R)-iloprost in these solvents is approximately 25 mg/ml.

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 15(R)-iloprost is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of 15(R)-iloprost in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Iloprost is a second generation structural analog of prostacyclin (PGI<sub>2</sub>) with about ten-fold greater potency than the first generation stable analogs, typified by carbaprostacyclin.<sup>1</sup> Iloprost binds with equal affinity to the human recombinant IP and EPs receptors, with a K<sub>i</sub> of 11 nM.<sup>2</sup> 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

- Schrör, K., Darius, H., Matzky, R., *et al.* The antiplatelet and cardiovascular actions of a new carbacyclin derivative (ZK36374) - equipotent to PGI<sub>2</sub> *in vitro*. *Naunyn-Schmiedeberg's Arch. Pharmacol.* **316**, 252-255 (1981).
- 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**, 285-293 (2000).

### Related Products

Carbaprostacyclin - Cat. No. 18210 • 5-*cis* Carbaprostacyclin - Cat. No. 18211 • Iloprost - Cat. No. 18215

### Cayman Chemical

**Mailing address**  
1180 E. Ellsworth Road  
Ann Arbor, MI  
48108 USA

**Phone**  
(800) 364-9897  
(734) 971-3335

**Fax**  
(734) 971-3640

**E-Mail**  
custserv@caymanchem.com

**Web**  
www.caymanchem.com

**WARNING: THIS PRODUCT IS NOT INTENDED OR APPROVED FOR HUMAN OR VETERINARY USE. USE OF THIS PRODUCT FOR HUMAN OR ANIMAL TESTING IS EXTREMELY HAZARDOUS AND MAY RESULT IN DISEASE, SEVERE INJURY, OR DEATH.**

#### MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent under separate cover to the MSD supervisor at your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes no warranty of any kind, expressed or implied, including, but not limited to, the warranties of fitness for a particular purpose and merchantability, which extends beyond the description of the chemicals on the face hereof, except that the material will meet our specifications at the time of delivery. Buyer's exclusive remedy and Cayman Chemical Company's sole liability hereunder shall be limited to refund of the purchase price of, or at Cayman Chemical Company's option the replacement of, all material that does not meet our specifications. Cayman Chemical Company shall not be liable otherwise or for incidental or consequential damages, including, but not limited to, the costs of handling. Said refund or replacement is conditioned on Buyer giving written notice to Cayman Chemical Company within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within said thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

Copyright Cayman Chemical Company, 03/16/2006