

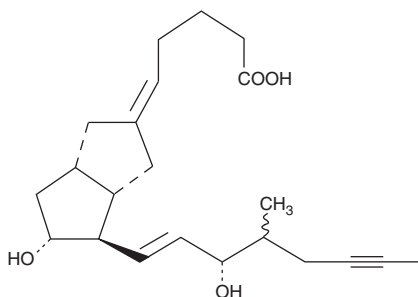
# PRODUCT INFORMATION



## Iloprost

Item No. 18215

**CAS Registry No.:** 78919-13-8  
**Formal Name:** 6,9 $\alpha$ -methylene-11 $\alpha$ ,15S-dihydroxy-16-methyl-prosta-5E,13E-dien-18-yn-1-oic acid  
**Synonyms:** Ciloprost  
**MF:** C<sub>22</sub>H<sub>32</sub>O<sub>4</sub>  
**FW:** 360.5  
**Purity:**  $\geq$ 97%  
**Supplied as:** A solution in methyl acetate  
**Storage:** -20°C  
**Stability:**  $\geq$ 2 years



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

### Laboratory Procedures

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 iloprost in ethanol and DMF is approximately 30 mg/ml and approximately 25 mg/ml in DMSO.

Iloprost is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of iloprost should be diluted with the aqueous buffer of choice. The solubility of 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) 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 EP<sub>1</sub> receptors with a K<sub>i</sub> of 11 nM.<sup>2</sup> Iloprost constricts the isolated guinea pig ileum and fundus circular smooth muscle (an EP<sub>1</sub> receptor preparation) as strongly as prostaglandin E<sub>2</sub> (PGE<sub>2</sub>) itself.<sup>3</sup> Iloprost inhibits the ADP, thrombin, and collagen-induced aggregation of human platelets with an ED<sub>50</sub> of about 13 nM.<sup>1</sup> In whole animals, iloprost acts as a vasodilator, hypotensive, antidiuretic, and prolongs bleeding time.<sup>4</sup> It has been evaluated in several human clinical studies as a treatment for idiopathic pulmonary hypertension.<sup>5,6</sup> In these studies, an aerosolized dose of 30  $\mu$ g/day was effective, and doses as high as 150  $\mu$ g/day for up to a year were well tolerated.

### References

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2. Abramovitz, M., Adam, M., Boie, Y., et al. *Biochim. Biophys. Acta* **1483(2)**, 285-293 (2000).
3. Sheldrick, R.L.G., Coleman, R.A., and Lumley, P. *Br. J. Pharmacol.* **94**, 334P (1988).
4. Schering, A.G. *Drug. Future* **7**, 839-977 (1982).
5. Hoepfer, M.M., Schwarze, M., Ehlerding, S., et al. *N. Engl. J. Med.* **342(25)**, 1866-1870 (2000).
6. Olschewski, H., Simonneau, G., Galié, N., et al. *N. Engl. J. Med.* **347(5)**, 322-329 (2002).

#### 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.

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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM