

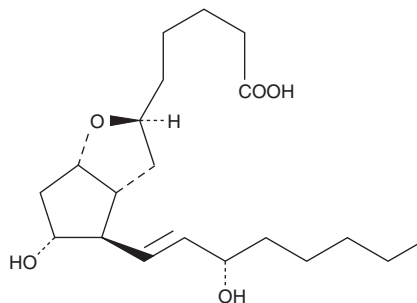
Product Information



6 β -Prostaglandin I₁

Catalog No. 18120

CAS Registry No: 62770-50-7
Formal Name: 6S,9 α -epoxy-11 α ,15S-dihydroxy-prost-13E-en-1-oic acid
Synonyms: 6 β -PGI₁, 5,6 β -dihydro PGI₂
MF: C₂₀H₃₄O₅
FW: 354.5
Purity: \geq 99%
Stability: \geq 2 years at -20°C
Supplied as: A crystalline solid
Melting Point: 65-67°C



Laboratory Procedures

For long term storage, we suggest that 6 β -prostaglandin I₁ (6 β -PGI₁) be stored as supplied at -20°C. It should be stable for at least two years.

6 β -PGI₁ is supplied as a crystalline solid. 6 β -PGI₁ is soluble in organic solvents such as ethanol, DMSO, or dimethyl formamide. The solubility of 6 β -PGI₁ in these solvents is at least 5 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. Organic solvent-free aqueous solutions of 6 β -PGI₁ can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of 6 β -PGI₁ in PBS (pH 7.2) is approximately 80 μ g/ml. Avoid using acidic buffers, pH < 7, as acid treatment results in the opening up of the epoxy group. We do not recommend storing the aqueous solution for more than one day.

6 β -PGI₁ is a weak inhibitor of platelet aggregation.¹ It is only 0.006 times as potent as prostacyclin.¹ 6 β -PGI₁ also acts as a weak systemic vasodilator that possesses only 3% of the activity of prostacyclin.¹ In whole homogenates of NCB-20 hybrid cells, 6 β -PGI₁ activates adenylate cyclase with a K_{act} value of 4.2 μ M, compared to 18 nM for PGI₂.²

References

- Whittle, B.J.R., Moncada, S., Whiting, F., *et al.* Carbacyclin - a potent stable prostacyclin analogue for the inhibition of platelet aggregation. *Prostaglandins* **19**, 605-627 (1980).
- Blair, I.A., Hensby, C.N., MacDermot, J. Prostacyclin-dependent activation of adenylate cyclase in a neuronal somatic cell hybrid: Prostanoid structure-activity relationships. *Br. J. Pharmacol.* **69**, 519-525 (1980).

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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 MSDS supervisor at your institution.

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Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will meet our specifications at the time of delivery.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

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