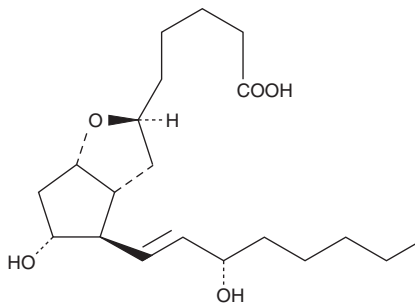


PRODUCT INFORMATION



6 β -Prostaglandin I₁ Item 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%
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



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

Laboratory Procedures

6 β -Prostaglandin I₁ (6 β -PGI₁) is supplied as a crystalline solid. A stock solution may be made by dissolving the 6 β -PGI₁ in the solvent of choice. 6 β -PGI₁ is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of 6 β -PGI₁ in these solvents is approximately 20, 5, and 10 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 solid in aqueous buffers. The solubility of 6 β -PGI₁ in PBS, pH 7.2, is approximately 80 μ g/ml. We do not recommend storing the aqueous solution for more than one day.

Description

6 β -PGI₁ is a stable PGI₂ analog resistant to hydrolysis in aqueous solutions. 6 β -PGI₁ has a much longer half-life than PGI₂, but a greatly reduced molar potency for receptor mediated function. 6 β -PGI₁ has a K_{act} for adenylate cyclase in NCB-20 cells of 4.2 μ M compared with 18 nM for PGI₂. The potency for vasodilation and inhibition of platelet aggregation is about 1% of PGI₂.^{1,2}

References

1. 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).
2. Blair, I.A., Hensby, C.N., and MacDermot, J. Prostacyclin-dependent activation of adenylate cyclase in a neuronal somatic cell hybrid: Prostanoid structure-activity relationships. *Br. J. Pharmac.* **69(3)**, 519-525 (1980).

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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