

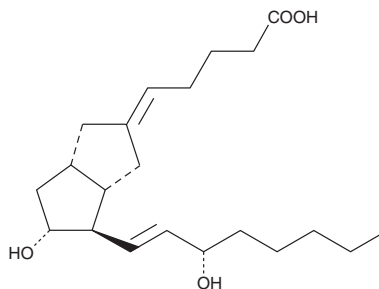
Product Information



5-*cis* Carbaprostacyclin

Item No. 18211

CAS Registry No.: 69609-77-4
Formal Name: 6,9 α -methylene-11 α ,15S-dihydroxy-prosta-5Z,13E-dien-1-oic acid
Synonym: (5Z)-6 α -Carbaprostaglandin I₂
MF: C₂₁H₃₄O₄
FW: 350.5
Purity: ≥99%
Stability: ≥1 year at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that 5-*cis* carbaprostacyclin be stored as supplied at -20°C. It will be stable for at least one year.

5-*cis* Carbaprostacyclin is supplied as a crystalline solid. A stock solution may be made by dissolving the 5-*cis* carbaprostacyclin in an organic solvent purged with an inert gas. 5-*cis* Carbaprostacyclin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 5-*cis* carbaprostacyclin in these solvents is approximately 20, 5, and 10 mg/ml, respectively.

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 5-*cis* carbaprostacyclin can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of 5-*cis* carbaprostacyclin in PBS (pH 7.2) is approximately 80 µg/ml. We do not recommend storing the aqueous solution for more than one day.

5-*cis* Carbaprostacyclin is a stable analog of PGI₂ and an isomer of carbaprostacyclin. It is a weak inhibitor of human platelet aggregation with an IC₅₀ of 2.8 µM compared to 0.3 µM for carbaprostacyclin.^{1,2} 5-*cis* Carbaprostacyclin is a much weaker effector of rabbit mesenteric artery relaxation with an EC₅₀ of 104 µM compared to 5.9 µM for carbaprostacyclin. It even antagonizes the adenylate cyclase activation induced by carbaprostacyclin.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).
- Corsini, A., Folco, G.C., Fumagalli, R., *et al.* (5Z)-carbacyclin discriminates between prostacyclin-receptors coupled to adenylate cyclase in vascular smooth muscle and platelets. *Br. J. Pharmacol.* **90**, 255-261 (1987).

Related Products

16(R)-AFP 07 (free acid) - Item No. 10991 • Carbaprostacyclin-biotinimide - Item No. 18213 • Carbaprostacyclin methyl ester - Item No. 9000183

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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

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