

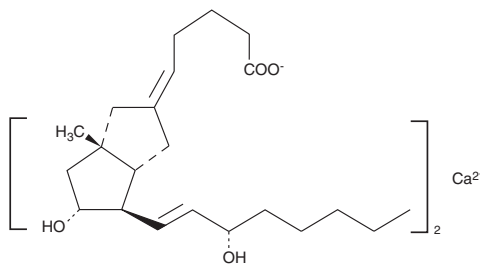
Product Information



Ciprostene (calcium salt)

Item No. 18216

CAS Registry No.: 81703-55-1
Formal Name: 6,9 α -methylene-9 β -methyl-11 α ,15S-dihydroxy-prosta-5Z,13E-dien-1-oic acid, monocalcium salt
Synonyms: Ciprostene calcium, U-61431F
MF: [C₂₂H₃₆O₄]₂ • Ca²⁺
FW: 769.1
Purity: \geq 98%
Stability: \geq 6 months at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that Ciprostene (calcium salt) (ciprostene) be stored as supplied at -20°C. It should be stable for at least six months.

Ciprostene is supplied as a crystalline solid. Stock solutions of ciprostene can be made by dissolving the crystalline compound in the solvent of choice. Solvents such as ethanol, DMSO, or dimethyl formamide purged with an inert gas can be used. The solubility of ciprostene in these solvents is approximately 16 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 aqueous solution of ciprostene is needed, it can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of ciprostene in PBS (pH 7.2) is approximately 275 μ g/ml. Store aqueous solutions of ciprostene on ice and use within 12 hours of preparation. Although the aqueous solutions of ciprostene may be stable for more than 12 hours, we strongly recommend using a fresh preparation each day.

Ciprostene is a stable analog of prostaglandin I₂ (PGI₂). Ciprostene exhibits biological activity similar to PGI₂. In patas monkeys, ciprostene induces hypotension in a dose dependent manner.¹ It also causes tachycardia when administered at a dose of 0.16 μ g/kg/min.¹ In addition, ciprostene inhibits ADP-induced platelet aggregation *ex vivo* and *in vitro* with ID₅₀ values of 9.1 μ g/kg/min and 60 ng/ml, respectively.¹⁻²

References

- Allan, G., Follenfant, M.J., Lidbury, P., *et al.* The cardiovascular and platelet actions of 9 β -methyl carbacyclin (ciprostene), a chemically stable analogue of prostacyclin, in the dog and monkey. *Br. J. Pharmacol.* **85**, 547-555 (1985).
- Aristoff, P.A., Johnson, P.D., Harrison, A.W. Synthesis of 9-substituted carbacyclin analogues. *J. Org. Chem.* **48**, 5341-5348 (1983).

Related Product

16(R)-AFP 07 (free acid) - Item No. 10991

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 *via* email to 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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