

# PRODUCT INFORMATION

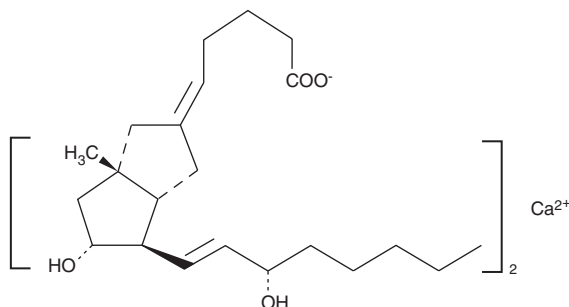


## Ciprostene (calcium salt)

Item No. 18216

**CAS Registry No.:** 81703-55-1  
**Formal Name:** 6,9 $\alpha$ -methylene-9 $\beta$ -methyl-11 $\alpha$ ,15S-dihydroxy-prosta-5Z,13E-dien-1-oic acid, monocalcium salt

**Synonyms:** Ciprostene calcium, U-61431F  
**MF:** [C<sub>22</sub>H<sub>35</sub>O<sub>4</sub>]<sub>2</sub> • Ca<sup>2+</sup>  
**FW:** 767.1  
**Purity:**  $\geq$ 98%  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:**  $\geq$ 6 months



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

### Laboratory Procedures

Ciprostene (calcium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the ciprostene (calcium salt) in the solvent of choice, which should be purged with an inert gas. Ciprostene (calcium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of ciprostene (calcium salt) in these solvents is approximately 34, 16.8, and 25 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 ciprostene (calcium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of Ciprostene (calcium salt) in PBS (pH 7.2) is approximately 0.29  $\mu$ g/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Ciprostene is the 9 $\beta$ -methyl analog of carbaprostacyclin and a stable analog of PGI<sub>2</sub>. Ciprostene exhibits biological activity similar to PGI<sub>2</sub>, but is 30-fold less potent. In patas monkeys, ciprostene induces hypotension and causes tachycardia when administered at a dose of 0.16  $\mu$ g/kg/min.<sup>1</sup> In addition, ciprostene inhibits ADP-induced platelet aggregation *ex vivo* and *in vitro* with ID<sub>50</sub> values of 9.1  $\mu$ g/kg/min and 60 ng/ml, respectively.<sup>1,2</sup>

### References

1. Allan, G., Follenfant, M.J., Lidbury, P., *et al.* The cardiovascular and platelet actions of 9 $\beta$ -methyl carbacyclin (ciprostene), a chemically stable analogue of prostacyclin, in the dog and monkey. *Br. J. Pharmacol.* **85**(2), 547-555 (1985).
2. Aristoff, P.A., Johnson, P.D., and Harrison, A.W. Synthesis of 9-substituted carbacyclin analogues. *J. Org. Chem.* **48**(26), 5341-5348 (1983).

**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.

**WARRANTY AND LIMITATION OF REMEDY**  
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