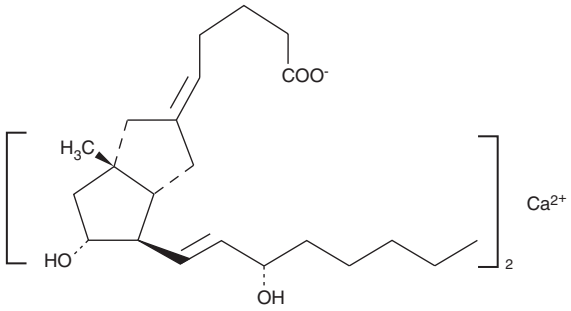
PRODUCT INFORMATION

Ciprostene (calcium salt)

Item No. 18216

CAS Registry No.:	81703-55-1
Formal Name:	6,9α-methylene-9β-methyl-11α,15S-dihydroxy-prosta-5Z,13E-dien-1-oic acid, monocalcium salt
Synonyms:	Ciprostene calcium, U-61431F
MF:	$[C_{22}H_{35}O_4]_2 \bullet Ca^{2+}$
FW:	767.1
Purity:	≥98%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥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 µg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Ciprostene is the 9β-methyl analog of carbaprostacyclin and a stable analog of PGI_2. Ciprostene exhibits biological activity similar to PGI_2, but is 30-fold less potent. In patas monkeys, ciprostene induces hypotension and causes tachycardia when administered at a dose of 0.16 µg/kg/min.[1] In addition, ciprostene inhibits ADP-induced platelet aggregation *ex vivo* and *in vitro* with ID_{50} values of 9.1 µg/kg/min and 60 ng/ml, respectively.[1,2]

References

1. Allan, G., Follenfant, M.J., Lidbury, P., *et al.* The cardiovascular and platelet actions of 9β-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).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM