

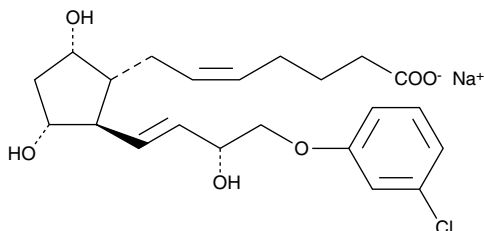
Product Information



Cloprostenol (sodium salt)

Item No. 16764

CAS Registry No.: 55028-72-3
Formal Name: (\pm)-9 α ,11 α ,15R-trihydroxy-16-(3-chlorophenoxy)-17,18,19,20-tetranorprosta-5Z,13E-dien-1-oic acid, sodium salt
Synonyms: (\pm)-16-*m*-chlorophenoxy tetranor Prostaglandin F_{2 α} , DL-Cloprostenol
MF: C₂₂H₂₈O₆Cl • Na
FW: 446.9
Purity: \geq 98%
Stability: \geq 2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max} : 275, 282 nm



Laboratory Procedures

For long term storage, we suggest that cloprostenol (sodium salt) be stored as supplied at -20°C. It should be stable for at least two years.

Cloprostenol (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the cloprostenol (sodium salt) in an organic solvent. Cloprostenol (sodium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of cloprostenol (sodium salt) in these solvents is approximately 50 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 cloprostenol (sodium salt) can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of cloprostenol (sodium salt) in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Cloprostenol (sodium salt) is a more water soluble, crystalline form of cloprostenol than the free acid. Cloprostenol is a synthetic analog of prostaglandin F_{2 α} (PGF_{2 α}). It is an FP receptor agonist and a potent luteolytic agent in rats and hamsters. It is 200 times more potent than PGF_{2 α} in terminating pregnancy when given subcutaneously at a daily dose of 0.125 μ g/kg in rats and hamsters, without the side effects associated with PGF_{2 α} .¹ Cloprostenol was also shown to be a potent inhibitor of rat adipose precursor differentiation in primary cultures with an IC₅₀ value of 3×10^{-12} M.²

References

1. Dukes, M., Russell, W., and Walpole, A.L. Potent luteolytic agents related to prostaglandin F_{2 α} . *Nature* **250**, 330-331 (1974).
2. Serrero, G. and Lepak, N.M. Prostaglandin F_{2 α} receptor (FP receptor) agonists are potent adipose differentiation inhibitors for primary culture of adipocyte precursors in defined medium. *Biochem. Biophys. Res. Commun.* **233**, 200-202 (1997).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/16764

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.

WARRANTY AND LIMITATION OF REMEDY

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.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's exclusive remedy and Cayman's sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman's option, the replacement, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.

Copyright Cayman Chemical Company, 06/20/2012

Cayman Chemical

Mailing address

1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone

(800) 364-9897
(734) 971-3335

Fax

(734) 971-3640

E-Mail

custserv@caymanchem.com

Web

www.caymanchem.com