

# PRODUCT INFORMATION



## (±)-Cloprosteno (sodium salt)

Item No. 16764

**CAS Registry No.:** 55028-72-3  
**Formal Name:** (5Z)-rel-7-[(1R,2R,3R,5S)-2-[(1E,3R)-4-(3-chlorophenoxy)-3-hydroxy-1-buten-1-yl]-3,5-dihydroxycyclopentyl]-5-Heptenoic acid, monosodium salt

**Synonyms:** (±)-16-m-chlorophenoxy tetranor PGF<sub>2α</sub>, (±)-16-m-chlorophenoxy tetranor Prostaglandin F<sub>2α</sub>, DL-Cloprosteno

**MF:** C<sub>22</sub>H<sub>28</sub>O<sub>6</sub>Cl • Na

**FW:** 446.9

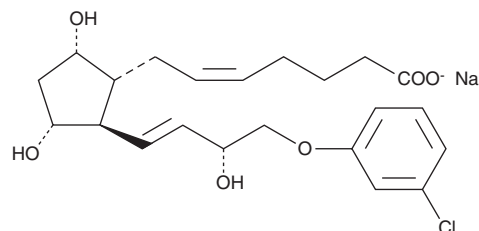
**Purity:** ≥98%

**UV/Vis.:** λ<sub>max</sub>: 275, 282 nm

**Supplied as:** A crystalline solid

**Storage:** -20°C

**Stability:** ≥4 years



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

### Laboratory Procedures

(±)-Cloprosteno (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the (±)-cloprosteno (sodium salt) in an organic solvent. (±)-Cloprosteno (sodium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of (±)-cloprosteno (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 (±)-cloprosteno (sodium salt) can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of (±)-cloprosteno (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.

### Description

(±)-Cloprosteno (sodium salt) is a more water soluble, crystalline form of cloprosteno than the free acid. Cloprosteno is a synthetic analog of prostaglandin F<sub>2α</sub> (PGF<sub>2α</sub>; Item No. 16010). It is an FP receptor agonist and a potent luteolytic agent in rats and hamsters. It is 200 times more potent than PGF<sub>2α</sub> in terminating pregnancy when given subcutaneously at a daily dose of 0.125 μg/kg in rats and hamsters, without the side effects associated with PGF<sub>2α</sub>.<sup>1</sup> Cloprosteno was also shown to be a potent inhibitor of rat adipose precursor differentiation in primary cultures with an IC<sub>50</sub> value of 3 x 10<sup>-12</sup> M.<sup>2</sup>

### References

1. Dukes, M., Russell, W., and Walpole, A.L. Potent luteolytic agents related to prostaglandin F<sub>2α</sub>. *Nature* **250**, 330-331 (1974).
2. Serrero, G. and Lepak, N.M. Prostaglandin F<sub>2α</sub> 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).

#### 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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/11/2022

#### 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