

## Certificate of Analysis

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**Product Name:** (±)-Cloprostenol sodium salt

**Catalog No.:** 2295

**Batch No.:** 1

CAS Number: 55028-72-3

EC Number: 259-439-3

IUPAC Name: (5*Z*)-*rel*-7-[(1*R*,2*R*,3*R*,5*S*)-2-[(1*E*,3*R*)-4-(3-chlorophenoxy)-3-hydroxy-1-butenyl]-3,5-dihydroxycyclopentyl]-5-heptenoic acid monosodium salt

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>22</sub>H<sub>28</sub>ClNaO<sub>6</sub>·½H<sub>2</sub>O

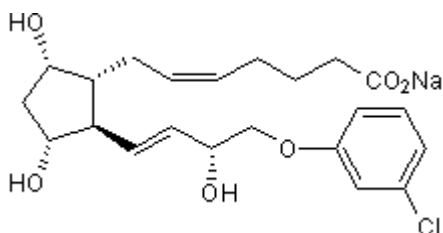
**Batch Molecular Weight:** 455.91

**Physical Appearance:** White solid

**Solubility:** water to 20 mM  
ethanol to 100 mM  
DMSO to 100 mM

**Storage:** Desiccate at -20°C

**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows >98.7% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

Carbon Hydrogen Nitrogen

Theoretical 57.96 6.41

Found 57.44 6.24

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**Description:**

Water-soluble prostaglandin F<sub>2α</sub> (PGF<sub>2α</sub>) analog; acts as a potent FP receptor agonist (EC<sub>50</sub> = 0.84 nM). Potently inhibits differentiation of adipocyte precursor cells. Luteolytic agent in vivo.

**Physical and Chemical Properties:**

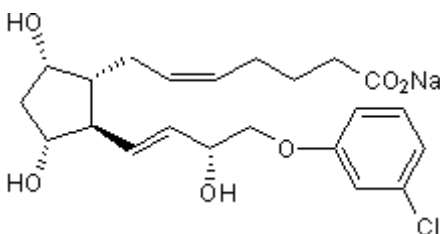
Batch Molecular Formula: C<sub>22</sub>H<sub>28</sub>ClNaO<sub>6</sub> · ½H<sub>2</sub>O

Batch Molecular Weight: 455.91

Physical Appearance: White solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**Storage:** Desiccate at -20°C

**Solubility & Usage Info:**

water to 20 mM  
ethanol to 100 mM  
DMSO to 100 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Dukes et al** (1974) Potent luteolytic agents related to prostaglandin F<sub>2α</sub>. *Nature* **250** 330. PMID: 4853720.

**Griffin et al** (1998) Pharmacological characterization of an FP prostaglandin receptor on rat vascular smooth muscle cells (A7r5) coupled to phosphoinositide turnover and intracellular calcium mobilization. *J.Pharmacol.Exp.Ther.* **286** 411. PMID: 9655886.

**Serrero and Lepak** (2002) 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.Comm.* **233** 200.

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