

# Certificate of Analysis

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**Product Name:** (+)-Fluprostenol

**Catalog No.:** 4542

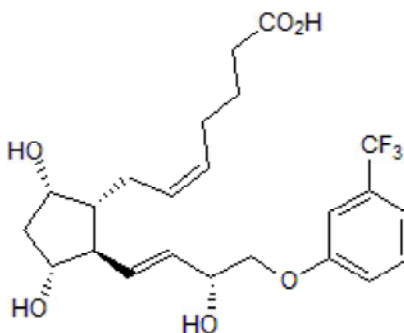
**Batch No.:** 3

**CAS Number:** 54276-17-4

**IUPAC Name:** (5Z)-7-[(1R,2R,3R,5S)-3,5-Dihydroxy-2-[(1E,3R)-3-hydroxy-4-[3-(trifluoromethyl)phenoxy]-1-buten-1-yl]cyclopentyl]-5-heptenoic acid

## 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>23</sub> H <sub>29</sub> F <sub>3</sub> O <sub>6</sub>
<b>Batch Molecular Weight:</b>	458.47
<b>Physical Appearance:</b>	Colourless liquid
<b>Solubility:</b>	Soluble in ethanol (supplied pre-dissolved in anhydrous ethanol, 10mg/ml)
<b>Storage:</b>	Store at -20°C
<b>Batch Molecular Structure:</b>	



## 2. ANALYTICAL DATA

<b>HPLC:</b>	Shows 96.4% purity
<b>Mass Spectrum:</b>	Consistent with structure

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

[www.tocris.com/distributors](http://www.tocris.com/distributors)

Tel: +1 612 379 2956

## Product Information

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**Catalog No.:** 4542

**Batch No.:** 3

CAS Number: 54276-17-4

EC Number:

IUPAC Name: (5Z)-7-[(1R,2R,3R,5S)-3,5-Dihydroxy-2-[(1E,3R)-3-hydroxy-4-[3-(trifluoromethyl)phenoxy]-1-buten-1-yl]cyclopentyl]-5-heptenoic acid

### Description:

Prostaglandin F<sub>2α</sub> (FP) receptor agonist (K<sub>i</sub> = 49.9 nM; EC<sub>50</sub> = 2.4 nM). Stimulates intracellular calcium mobilization in cloned human ocular FP receptors, rat A7r5 cells and mouse 3T3 cells (EC<sub>50</sub> values are 17.5, 19.1 and 37.3 nM respectively). Analog of prostaglandin F<sub>2α</sub>. Isopropyl ester travaprost (Cat. No. 4218) also available.

### Physical and Chemical Properties:

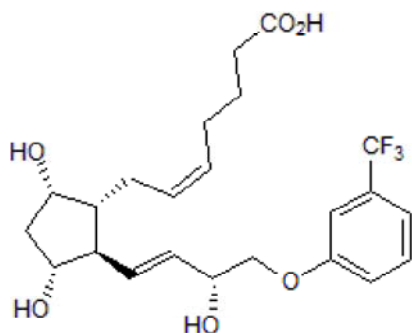
Batch Molecular Formula: C<sub>23</sub>H<sub>29</sub>F<sub>3</sub>O<sub>6</sub>

Batch Molecular Weight: 458.47

Physical Appearance: Colourless liquid

**Minimum Purity:** ≥95%

### Batch Molecular Structure:



**Storage:** Store at -20°C

### Solubility & Usage Info:

Soluble in ethanol (supplied pre-dissolved in anhydrous ethanol, 10mg/ml)

This compound is supplied pre-dissolved in ethanol (10mg/ml). To change the solvent, evaporate the ethanol under a gentle stream of nitrogen and immediately add the chosen solvent (preferably purged with nitrogen beforehand). The solubility of (+)-Fluprostenol is greater than 100mM in DMSO. This stock solution can be further diluted in aqueous buffers. We do not recommend storing aqueous solutions for more than a day.

### 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:

**Kelly *et al*** (2003) Real-time intracellular Ca<sup>2+</sup> mobilization by travo. acid, bimatoprost, unoprostone, and other analogs via endogenous mouse, rat and cloned human FP prostaglandin receptors. *J.Pharmacol.Exp.Ther.* **304** 238. PMID: 12490597.

**Sharif *et al*** (2003) Human trabecular meshwork cell responses induced by bimatoprost, travoprost, unoprostone, and other EP prostaglandin receptor agonist analogues. *Invest.Ophthalmol.Vis.Sci.* **44** 715. PMID: 12556403.

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