

# Small Molecules

## Fluprostenol

Prostanoid pathway activator;  
Activates prostaglandin F2 $\alpha$  receptor

Catalog # 73672  
73674

1 mg  
10 mg



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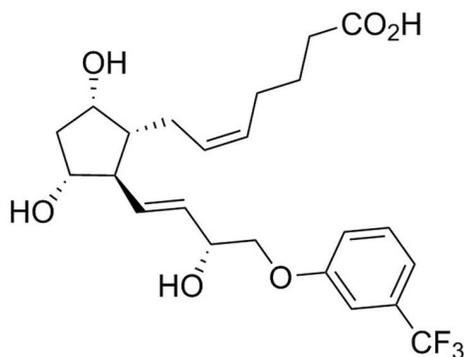
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## Product Description

Fluprostenol is a metabolically stable analog of prostaglandin F2 $\alpha$  (PGF2 $\alpha$ ) with potent PGF2 $\alpha$  receptor agonist activity (Abramovitz et al.). Fluprostenol competitively binds to human and rat PGF2 $\alpha$  receptors with IC<sub>50</sub> values of 3.5 and 7.5 nM, respectively (Abramovitz et al.; Lake et al.). This product is supplied as a 10 mg/mL solution in ethanol.

Molecular Name:	Fluprostenol
Alternative Names:	16-m-trifluoromethylphenoxy tetranor Prostaglandin F2 $\alpha$
CAS Number:	54276-17-4, 64-17-5
Chemical Formula:	C <sub>23</sub> H <sub>29</sub> F <sub>3</sub> O <sub>6</sub>
Molecular Weight:	458.5 g/mol
Purity:	≥ 95%
Chemical Name:	(+)-9 $\alpha$ ,11 $\alpha$ ,15R-trihydroxy-16-(3-(trifluoromethyl)phenoxy)-17,18,19,20-tetranor-prosta-5Z,13E-dien-1-oic acid

Structure:



## Properties

Physical Appearance:	A solution in ethanol
Storage:	Product stable at -20°C as supplied. Protect product from prolonged exposure to light. Stable as supplied for 12 months from date of receipt.
Solubility:	Not applicable.

## Published Applications

### DIFFERENTIATION

- Inhibits adipose differentiation of newborn rat adipocyte precursors in primary culture (Serrero & Lepak).

### DISEASE MODELING

- Inhibits endothelin-induced contraction of the trabecular meshwork in bovine ocular tissue in vitro, a model of intraocular pressure in glaucoma (Thieme et al.).

## References

- Abramovitz M et al. (1994) Cloning and expression of a cDNA for the human prostanoid FP receptor. *J Biol Chem* 269(4): 2632–6.
- Lake S et al. (1994) Cloning of the rat and human prostaglandin F2 alpha receptors and the expression of the rat prostaglandin F2 alpha receptor. *FEBS Lett* 355(3): 317–25.
- Serrero G & Lepak NM. (1997) Prostaglandin F2alpha receptor (FP receptor) agonists are potent adipose differentiation inhibitors for primary culture of adipocyte precursors in defined medium. *Biochem Biophys Res Commun* 233(1): 200–2.
- Thieme H et al. (2006) Endothelin antagonism: effects of FP receptor agonists prostaglandin F2alpha and fluprostenol on trabecular meshwork contractility. *Invest Ophthalmol Vis Sci* 47(3): 938–45.

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**This product is hazardous. Please refer to the Safety Data Sheet (SDS).**

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