

Small Molecules

Fluprostenol

Prostanoid pathway activator;
Activates prostaglandin F2 α receptor

Catalog # 73672
73674

1 mg
10 mg



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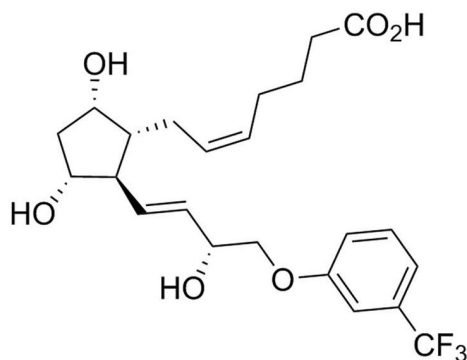
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Product Description

Fluprostenol is a metabolically stable analog of prostaglandin F2 α (PGF2 α) with potent PGF2 α receptor agonist activity (Abramovitz et al.). Fluprostenol competitively binds to human and rat PGF2 α receptors with IC₅₀ values of 3.5 and 7.5 nM, respectively (Abramovitz et al.; Lake et al.).

Molecular Name:	Fluprostenol
Alternative Names:	16-m-trifluoromethylphenoxy tetranor Prostaglandin F2 α
CAS Number:	54276-17-4, 64-17-5
Chemical Formula:	C ₂₃ H ₂₉ F ₃ O ₆
Molecular Weight:	458.5 g/mol
Purity:	≥ 95%
Chemical Name:	(+)-9 α ,11 α ,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.

Related Small Molecules

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