Small Molecules

Fluprostenol

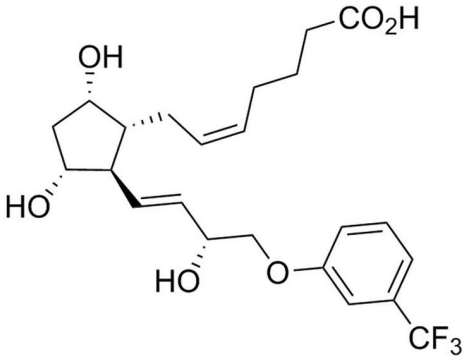
Prostanoid pathway activator;
Activates prostaglandin F2α receptor

Catalog #	73672	1 mg
	73674	10 mg

STEMCELL™ TECHNOLOGIES
Scientists Helping Scientists™ | WWW.STEMCELL.COM
TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713
INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM
FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

Product Description

Fluprostenol is a metabolically stable analog of prostaglandin F2α (PGF2α) with potent PGF2α receptor agonist activity (Abramovitz et al.). Fluprostenol competitively binds to human and rat PGF2α receptors with IC_{50} 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 F2α
CAS Number:	54276-17-4, 64-17-5
Chemical Formula:	$C_{23}H_{29}F_3O_6$
Molecular Weight:	458.5 g/mol
Purity:	≥ 95%
Chemical Name:	(+)-9alpha,11alpha,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

For a complete list of small molecules available from STEMCELL Technologies, visit www.stemcell.com/smallmolecules or contact us at techsupport@stemcell.com.

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