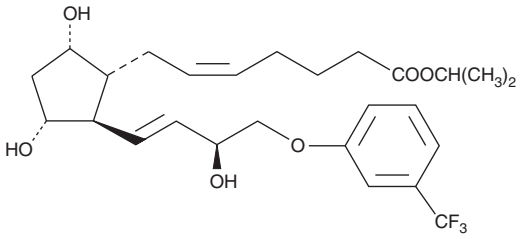
Product Information

15(S)-Fluprostenol isopropyl ester

Item No. 16788

CAS Registry No.: 1420791-14-5
Formal Name: 9α,11α,15S-trihydroxy-16-(3-trifluoromethyl)phenoxy)-17,18,19,20-tetranor-prosta-5Z,13E-dien-1-oic acid, isopropyl ester
Synonym: 15(S)-Flu-Ipr
MF: $C_{26}H_{35}F_3O_6$
FW: 500.6
Purity: ≥98%
Stability: ≥2 years at -20˚C
Supplied as: A solution in ethanol
UV/Vis.: λ_{max}: 222, 280 nm



Laboratory Procedures

For long term storage, we suggest that 15(S)-fluprostenol isopropyl ester (15(S)-Flu-Ipr) be stored as supplied at -20˚C. It should be stable for at least two years.

15(S)-Flu-Ipr is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of 15(S)-Flu-Ipr in these solvents is approximately 12 mg/ml. 15(S)-Flu-Ipr is stable for at least six months in these solvents if stored at -20°C.

15(S)-Flu-Ipr is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of 15(S)-Flu-Ipr should be diluted with the aqueous buffer of choice. 15(S)-Flu-Ipr has a solubility of 1 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

15(S)-Flu-Ipr is the unnatural C-15 epimer of Travoprost. Travoprost is the Alcon trade name for Flu-Ipr an F-series prostaglandin analog which has been approved for use as an ocular hypotensive drug.[1] Fluprostenol isopropyl ester is a prodrug which is converted by esterase enzymatic activity in the cornea to yield the corresponding free acid. The free acid, fluprostenol, is a potent FP receptor agonist.[2] In human and animal models of glaucoma, FP receptor agonist activity corresponds very closely with intraocular hypotensive activity. Although data is currently not available for the activity of 15(S)-Flu-Ipr, inversion of the stereochemistry at the 15 position of ocular hypotensive prostaglandins generally lowers the potency approximately 100-fold.[3]

References

1. Sorbera, L.A. and Castañer, J. Travoprost. *Drugs of the Future* **25**, 41-45 (2000).
2. Abramovitz, M., Adam, M., Boie, Y., *et al.* The utilization of recombinant prostanoid receptors to determine the affinities and selectivities of prostaglandins and related analogs. *Biochim. Biophys. Acta* **1483**, 285-293 (2000).
3. Stjernschantz, J. and Resul, B. Phenyl substituted prostaglandin analogs for glaucoma treatment. *Drugs of the Future* **17**, 691-704 (1992).

Cayman Chemical

Mailing address
1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone
(800) 364-9897
(734) 971-3335

Fax
(734) 971-3640

E-Mail
custserv@caymanchem.com

Web
www.caymanchem.com