

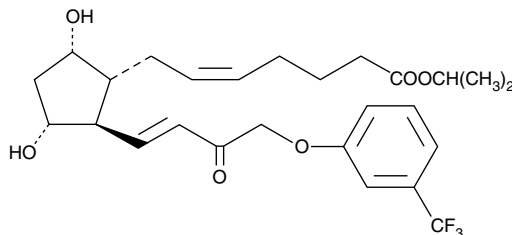
Product Information



15-keto Fluprostenol isopropyl ester

Item No. 16786

CAS Registry No.: 404830-45-1
Formal Name: (±)-15-oxo-9α,11α-dihydroxy-16-(3-(trifluoromethyl)phenoxy)-17,18,19,20-tetranor-prosta-5Z,13E-dien-1-oic acid, isopropyl ester
Synonym: 15-keto Travoprost
MF: C₂₆H₃₃F₃O₆
FW: 498.5
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A solution in methyl acetate
UV/Vis.: λ_{max}: 224 nm



Laboratory Procedures

For long term storage, we suggest that 15-keto fluprostenol isopropyl ester be stored as supplied at -20°C. It should be stable for at least two years.

15-keto Fluprostenol isopropyl ester is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate 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-keto fluprostenol isopropyl ester in these solvents is approximately 100 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of 15-keto fluprostenol isopropyl ester is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of 15-keto fluprostenol isopropyl ester in PBS (pH 7.2) is approximately 16 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Travoprost is an F-series prostaglandin analog which has been approved for use as an ocular hypotensive drug.¹ Oxidation of the C-15 hydroxyl group without isopropyl ester hydrolysis produces 15-keto fluprostenol isopropyl ester (15-keto travoprost). 15-keto Travoprost is a potential metabolite of travoprost when administered to animals. 15-keto Travoprost is also one of the common minor impurities found in commercial preparations of the bulk drug compound.

In general, F-series prostaglandin analogs with a 15-keto functional group lose a great deal of their FP receptor binding affinity, but retain enough to show a continued weak IOP hypotensive response.² The efficacy of 15-keto travoprost as an ocular hypotensive has not been established.

References

1. Sorbera, L.A. and Castaner, J. Travoprost. *Drugs of the Future* **25**, 41-45 (2000).
2. Taniguchi, T., Haque, M.S.R., Sugiyama, K., *et al.* Ocular hypotensive mechanism of topical isopropyl unoprostone, a novel prostaglandin metabolite-related drug, in rabbits. *J. Ocul. Pharmacol.* **12**, 489-498 (1996).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/16786

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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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