

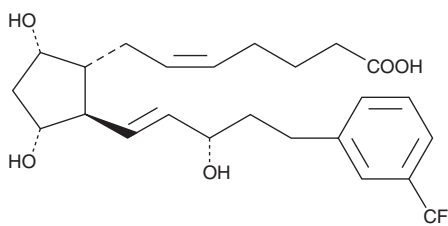
Product Information



17-trifluoromethylphenyl trinor Prostaglandin F_{2α}

Item No. 16890

CAS Registry No.: 221246-34-0
Formal Name: 9α,11α,15S-trihydroxy-17-trifluoromethyl-phenyl-18,19,20-trinor-prosta-5Z,13E-dien-1-oic acid
Synonym: 17-trifluoromethylphenyl trinor PGF_{2α}
MF: C₂₄H₃₁O₅F₃
FW: 456.5
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A solution in methyl acetate



Laboratory Procedures

For long term storage, we suggest that 17-trifluoromethylphenyl trinor prostaglandin F_{2α} (17-trifluoromethylphenyl trinor PGF_{2α}) be stored as supplied at -20°C. It should be stable for at least one year.

17-trifluoromethylphenyl trinor PGF_{2α} 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 17-trifluoromethylphenyl trinor PGF_{2α} in these solvents is approximately 25 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 17-trifluoromethylphenyl trinor PGF_{2α} is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of 17-trifluoromethylphenyl trinor PGF_{2α} in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

A number of 17-phenyl trinor PGF_{2α} derivatives have been approved for the treatment of glaucoma.¹⁻⁴ Of these, the unsubstituted or *meta*-substituted aromatic derivatives are the most potent FP receptor agonists.⁵ 17-trifluoromethylphenyl trinor PGF_{2α} bears an aromatic ring which is reminiscent of the trifluoromethyl-phenoxy ring of travoprost ((+)-fluprostenol isopropyl ester). As an ocular hypotensive agent, it would be expected that 17-trifluoromethylphenyl trinor PGF_{2α} would act very much like the free acid of travoprost. 17-phenyl trinor PGF_{2α} is a potent luteolytic and abortifacient, with a potency equal to or greater than fluprostenol and cloprostenol.⁵

References

1. Woodward, D.F., Krauss, A.H.-P., Chen, J., *et al.* The pharmacology of Bimatoprost (Lumigan™). *Survey of Ophthalmology* **45**, S337-S345 (2001).
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. Sorbera, L.A. and Castañer, J. Travoprost. *Drugs of the Future* **25**, 41-45 (2000).
4. Maxey, K.M., Johnson, J., Camras, C.B., *et al.* The hydrolysis of bimatoprost in corneal tissue generates a potent prostanoid FP receptor agonist. *Survey of Ophthalmology* **47**(4), 34-40 (2002).
5. deLong, M.A., Amburgey, J., Taylor, C., *et al.* Synthesis and *in vitro* evaluation of human FP-receptor selective prostaglandin analogues. *Bioorg. Medicinal Chem. Letters* **10**, 1519-1522 (2000).

Related Products

(+)-Fluprostenol - Item No. 16768 • 17-phenyl trinor Prostaglandin F_{2α} - Item No. 16810 • Latanoprost - Item No. 16812 • (±)-Cloprostenol - Item No. 16765 • (+)-Fluprostenol isopropyl ester - Item No. 16769 • 17-trifluoromethylphenyl-13,14-dihydro trinor Prostaglandin F_{2α} - Item No. 16895 • 17-trifluoromethylphenyl trinor Prostaglandin F_{2α} isopropyl ester - Item No. 10010062 • 17-trifluoromethylphenyl trinor Prostaglandin F_{2α} methyl ester - Item No. 10010111 • (+)-Cloprostenol methyl ester - Item No. 10010115 • (+)-Cloprostenol methyl amide - Item No. 10010495

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