

Product Information



17-trifluoromethylphenyl trinor Prostaglandin F_{2α} methyl ester

Item No. 10010111

CAS Registry No.: 195503-20-9

Formal Name: 7-[3R,5S-dihydroxy-2R-[3S-hydroxy-5Z-[3-(trifluoromethyl)phenyl]-1R-penten-1E-yl]cyclopentyl]-5-heptenoic acid, methyl ester

Synonym: 17-trifluoromethylphenyl trinor PGF_{2α} methyl ester

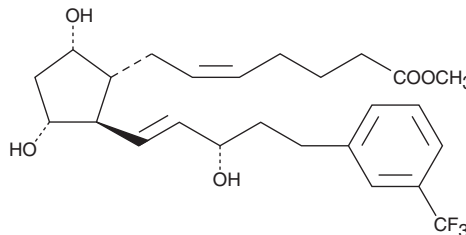
MF: C₂₅H₃₃F₃O₅

FW: 470.5

Purity: ≥98%

Stability: ≥1 year at -20°C

Supplied as: A solution in ethanol



Laboratory Procedures

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

17-trifluoromethylphenyl trinor PGF_{2α} methyl ester 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 DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of 17-trifluoromethylphenyl trinor PGF_{2α} methyl ester 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} methyl ester is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 17-trifluoromethylphenyl trinor PGF_{2α} methyl ester in PBS, pH 7.2, is approximately 0.15 mg/ml. We do not recommend storing the aqueous solution for more than one day.

PGF_{2α}, acting through the FP receptor, causes smooth muscle contraction and exhibits potent luteolytic activity.¹⁻³ 17-trifluoromethylphenyl trinor PGF_{2α} is an analog of PGF_{2α} that shares the meta-trifluoromethyl group of travoprost with the 17-phenyl trinor modification of latanoprost. It is anticipated to be a potent and selective agonist of the FP receptor, with potential applications in glaucoma and luteolysis. 17-trifluoromethylphenyl trinor PGF_{2α} methyl ester is a lipophilic analog of 17-trifluoromethylphenyl trinor PGF_{2α}. Methyl esters of PGs serve as prodrugs, as they are efficiently hydrolyzed in certain tissues to generate the bioactive free acid.

References

1. Samuelsson, B., Goldyne, M., Granström, E., *et al.* Prostaglandins and thromboxanes. *Annu. Rev. Biochem.* **47**, 997-1029 (1978).
2. Speroff, L. and Ramwell, P.W. Prostaglandins in reproductive physiology. *Am. J. Obstet. Gynecol.* **107**, 1111-1130 (1970).
3. Crankshaw, D.J. and Gaspar, V. Pharmacological characterization *in vitro* of prostanoid receptors in the myometrium of nonpregnant ewes. *J. Reprod. Fertil.* **103**, 55-61 (1995).

Related Products

17-trifluoromethylphenyl trinor Prostaglandin F_{2α} - Item No. 16890 • 17-trifluoromethylphenyl-13,14-dihydro trinor Prostaglandin F_{2α} - Item No. 16895 • 17-trifluoromethylphenyl trinor Prostaglandin F_{2α} ethyl amide - Item No. 10010061 • 17-trifluoromethylphenyl trinor Prostaglandin F_{2α} isopropyl ester - Item No. 10010062 • 17-phenyl trinor Prostaglandin F_{2α} methyl ester - Item No. 10010110

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