

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

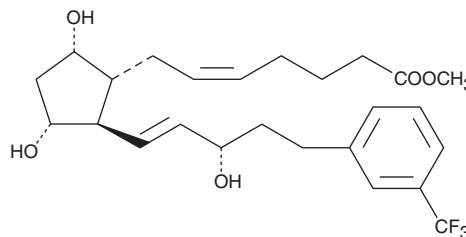
FW: 470.5

Purity: ≥98%

Supplied as: A solution in ethanol

Storage: -20°C

Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

17-trifluoromethylphenyl trinor Prostaglandin F_{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 ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of 17-trifluoromethylphenyl trinor prostaglandin F_{2α} methyl ester in these solvents is approximately 50 and 25 mg/ml, respectively.

17-trifluoromethylphenyl trinor Prostaglandin F_{2α} methyl ester is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanol solution of 17-trifluoromethylphenyl trinor prostaglandin F_{2α} methyl ester should be diluted with the aqueous buffer of choice. The solubility of 17-trifluoromethylphenyl trinor prostaglandin F_{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.

Description

Prostaglandin F_{2α} (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(7)**, 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(1)**, 55-61 (1995).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM