

PRODUCT INFORMATION



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

Item No. 10010110

CAS Registry No.: 38315-47-8

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

Synonyms: Bimatoprost methyl ester, 17-phenyl trinor PGF_{2α} methyl ester

MF: C₂₄H₃₄O₅

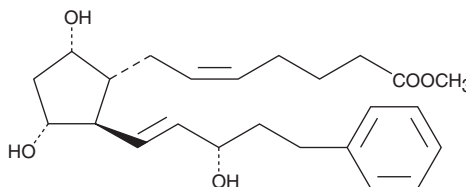
FW: 402.5

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-phenyl 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 acetonitril, DMSO, and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of 17-phenyl trinor prostaglandin F_{2α} methyl ester in acetonitrile is approximately 3 mg/ml and approximately 25 mg/ml in DMSO and DMF.

17-phenyl trinor Prostaglandin F_{2α} methyl ester is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of 17-phenyl trinor prostaglandin F_{2α} methyl ester should be diluted with the aqueous buffer of choice. The solubility of 17-phenyl trinor prostaglandin F_{2α} methyl ester in PBS (pH 7.2) is approximately 0.25 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Prostaglandin F_{2α} (PGF_{2α}) drives luteolysis and smooth muscle contraction by activating the FP receptor. 17-phenyl trinor PGF_{2α} methyl ester is a lipophilic analog of 17-phenyl trinor PGF_{2α}, a potent agonist for the FP receptor. 17-phenyl trinor PGF_{2α} binds the FP receptor on ovine luteal cells with a relative potency of 756% compared to that of PGF_{2α}.¹ Esters of PGs serve as prodrugs, as they are efficiently hydrolyzed in certain tissues to generate the bioactive free acid.

Reference

1. Balapure, A.K., Rexroad, C.E., Jr., Kawada, K., *et al.* Structural requirements for prostaglandin analog interaction with the ovine corpus luteum prostaglandin F_{2α} receptor. *Biochem. Pharmacol.* **38(14)**, 2375-2381 (1989).

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