

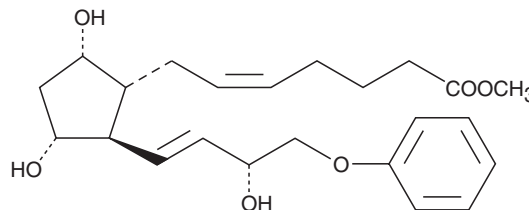
PRODUCT INFORMATION



16-phenoxy tetranor Prostaglandin F_{2a} methyl ester

Item No. 10010102

CAS Registry No.: 51638-90-5
Formal Name: 9 α ,11 α ,15R-trihydroxy-16-phenoxy-17,18,19,20-tetranor-prosta-5Z,13E-dien-1-oic acid, methyl ester
Synonym: 16-phenoxy tetranor PGF_{2a} methyl ester
MF: C₂₃H₃₂O₆
FW: 404.5
Purity: \geq 98%
Supplied as: A 5 mg/ml solution in ethanol
Storage: -20°C
Stability: \geq 2 years



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

Laboratory Procedures

16-phenoxy tetranor PGF_{2a} 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 16-phenoxy tetranor PGF_{2a} methyl 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 16-phenoxy tetranor PGF_{2a} methyl ester is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 16-phenoxy tetranor PGF_{2a} methyl ester in PBS, pH 7.2, is approximately 0.5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

PGF_{2a} drives luteolysis and smooth muscle contraction by activating the FP receptor. Stable, lipophilic analogs of PGF_{2a} are used to modulate luteolysis and treat glaucoma. 16-phenoxy tetranor PGF_{2a} is a metabolically stable form of PGF_{2a} containing a 16-phenoxy group at the ω -terminus. It binds to the FP receptor on ovine luteal cells with much greater affinity (440%) than PGF_{2a}.¹ 16-phenoxy tetranor PGF_{2a} methyl ester is a lipophilic analog of 16-phenoxy tetranor PGF_{2a}. Methyl 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_{2a} 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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