

PRODUCT INFORMATION



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

Item No. 10010351

CAS Registry No.: 155206-01-2
Formal Name: (5Z)-7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(1E,3S)-3-hydroxy-5-phenyl-1-penten-1-yl]cyclopentyl]-N-methyl-5-heptenamide

Synonyms: Bimatoprost methyl amide, Methylamido Dihydro Noralfaprostal, 17-phenyl trinor PGF_{2α} methyl amide

MF: C₂₄H₃₅NO₄

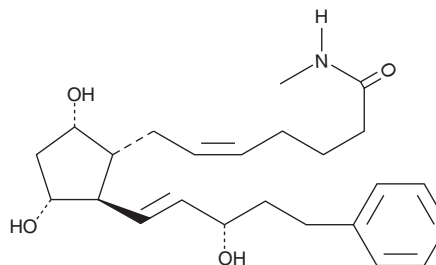
FW: 401.5

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

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-phenyl trinor PGF_{2α} methyl amide is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 17-phenyl trinor PGF_{2α} methyl amide in PBS (pH 7.2) is approximately 0.3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

17-phenyl trinor PGF_{2α} is a metabolically stable analog of PGF_{2α} and is a potent agonist for the FP receptor, binding with a relative potency of 756% compared to that of PGF_{2α}.¹ The ethyl amide of 17-phenyl trinor PGF_{2α} bimatoprost has been approved for use as an ocular hypotensive drug.² 17-phenyl trinor Prostaglandin F_{2α} (17-phenyl trinor PGF_{2α}) is a metabolically stable analog of PGF_{2α} and is a potent agonist for the FP receptor, binding with a relative potency of 756% compared to that of PGF_{2α}.¹ 17-phenyl trinor PGF_{2α} methyl amide is an analog of bimatoprost.

References

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).
2. Woodward, D.F., Krauss, A.H.-P., Chen, J., *et al.* The pharmacology of Bimatoprost (Lumigan™). *Surv. Ophthalmol.* **45(Suppl 4)**, S337-S345 (2001).

WARNING

THIS PRODUCT IS FOR RESEARCH USE - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE. It is the responsibility of the purchaser to determine suitability for other applications.

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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