

PRODUCT INFORMATION



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

Item No. 16820

CAS Registry No.: 155206-00-1

Formal Name: N-ethyl-9α,11α,15S-trihydroxy-17-phenyl-18,19,20-trinor-prosta-5Z,13E-dien-1-amide

Synonyms: Bimatoprost, 15(S)-Bimatoprost, 17-phenyl trinor PGF_{2α} ethyl amide

MF: C₂₅H₃₇NO₄

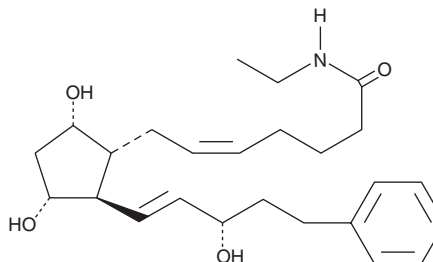
FW: 415.6

Purity: ≥97%

Supplied as: A crystalline solid

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} ethyl amide (17-phenyl trinor PGF_{2α} ethyl amide) is supplied as a crystalline solid. A stock solution may be made by dissolving the 17-phenyl trinor PGF_{2α} ethyl amide in an organic solvent purged with an inert gas. 17-phenyl trinor PGF_{2α} ethyl amide is soluble in organic solvents such as ethanol, acetonitrile, DMSO, and dimethyl formamide (DMF). The solubility of 17-phenyl trinor PGF_{2α} ethyl amide in ethanol is approximately 50 mg/ml, approximately 3 mg/ml in acetonitrile, 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. Organic solvent-free aqueous solutions of 17-phenyl trinor PGF_{2α} ethyl amide can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of 17-phenyl trinor PGF_{2α} ethyl amide in PBS (pH 7.2) is approximately 300 µg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

17-phenyl trinor PGF_{2α} ethyl amide is an F-series prostaglandin derivative and an agonist of FP receptors.^{1,2} It induces calcium mobilization in 3T3-L1 fibroblasts expressing the human receptors (EC₅₀ = 2.2 µM).¹ Ocular administration of 17-phenyl trinor PGF_{2α} ethyl amide (0.03% w/v) reduces intraocular eye pressure (IOP) in normotensive dogs and ocular hypertensive monkeys.² Formulations containing 17-phenyl trinor PGF_{2α} ethyl amide have been used in the treatment of open angle glaucoma, ocular hypertension, and eyelash hypotrichosis.

References

1. Sharif, N.A., Williams, G.W., and Kelly, C.R. Bimatoprost and its free acid are prostaglandin FP receptor agonists. *Eur. J. Pharmacol.* **432(2-3)**, 211-213 (2001).
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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