

PRODUCT INFORMATION



17-phenyl trinor Prostaglandin F_{2α} amide

Item No. 16821

CAS Registry No.: 155205-89-3
Formal Name: (5Z)-7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(1E,3S)-3-hydroxy-5-phenyl-1-penten-1-yl]cyclopentyl]-5-heptenamamide

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

MF: C₂₃H₃₃NO₄

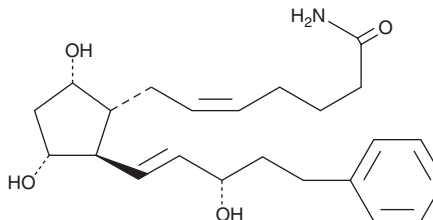
FW: 387.5

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} amide (17-phenyl trinor PGF_{2α} 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 and dimethyl formamide purged with an inert gas can be used. The solubility of 17-phenyl trinor PGF_{2α} amide in these solvents is approximately 20 and 30 mg/ml, respectively.

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

Description

17-phenyl trinor PGF_{2α} amide is an F-series PG analog in which the C-1 carboxyl group has been modified to an unsubstituted amide. PG esters have been shown to have ocular hypotensive activity.¹ PG N-ethyl amides were recently introduced as alternative PG hypotensive prodrugs.² Although it has been claimed that PG amides are not converted to the free acids *in vivo*, studies have shown that bovine and human corneal tissue converts the amides of various PGs to the free acids with a conversion efficiency of about 10-20% relative to the hydrolysis of isopropyl esters.^{2,3} 17-phenyl trinor PGF_{2α} amide would be expected to show the typical intraocular effects of latanoprost, but with the much slower hydrolysis pharmacokinetics of the PG N-amides.

References

1. Bito, L.Z. Comparison of the ocular hypotensive efficacy of eicosanoids and related compounds. *Exp. Eye Res.* **38(2)**, 181-184 (1984).
2. Woodward, D.F., Krauss, A.H., Chen, J., *et al.* The pharmacology of bimatoprost (Lumigan™). *Surv. Ophthalmol.* **45(Suppl 4)**, S337-S345 (2001).
3. Maxey, K.M., Johnson, J., and LaBrecque, J. The hydrolysis of bimatoprost in corneal tissue generates a potent prostanoid FP receptor agonist. *Surv. Ophthalmol.* **47(Suppl 1)**, S34-S40 (2002).

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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