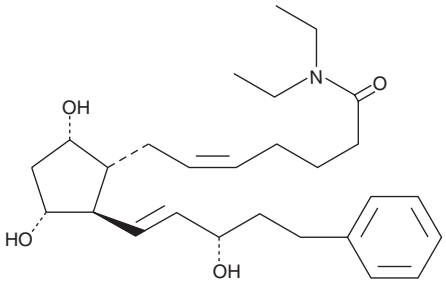
# PRODUCT INFORMATION

## 17-phenyl trinor Prostaglandin $F_{2\alpha}$ diethyl amide

*Item No. 16823*

**CAS Registry No.:** 1176637-26-5
**Formal Name:** N-diethyl-9α,11α,15S-trihydroxy-17-phenyl-18,19,20-trinor-prosta-5Z,13E-dien-1-amide
**Synonyms:** Bimatoprost diethyl amide, 17-phenyl trinor $PGF_{2\alpha}$ diethyl amide, 17-p-$PGF_{2\alpha}$-$NEt_2$
**MF:** $C_{27}H_{41}NO_4$
**FW:** 443.6
**Purity:** ≥98%
**Supplied as:** A solution in methyl acetate
**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 $F_{2\alpha}$ diethyl amide (17-phenyl trinor $PGF_{2\alpha}$ diethyl amide) is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of 17-phenyl trinor $PGF_{2\alpha}$ diethyl amide in ethanol and DMSO is approximately 20 mg/ml and approximately 30 mg/ml in DMF.

### Description

17-phenyl trinor $PGF_{2\alpha}$ diethyl amide is an analog of $PGF_{2\alpha}$ in which the C-1 carboxyl group has been modified to an N-diethyl 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] Studies have shown that bovine and human corneal tissue converts the N-ethyl amides of various PGs to the free acids with a conversion efficiency of about 2.5 µg/g corneal tissue/hr.[3] However, dialkyl amides such as 17-phenyl trinor $PGF_{2\alpha}$ diethyl amide are inert to corneal amidase activity, and are not converted in any detectable amount to the corresponding free acids. These compounds may therefore be useful tools in elucidating the claim that PG amides have intrinsic intraocular hypotensive activity.

### 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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