

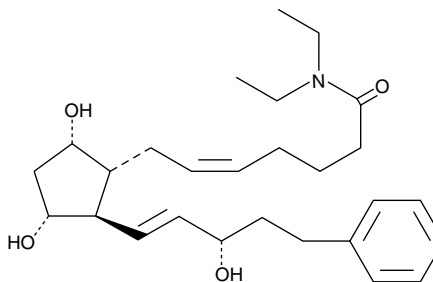
# Product Information



## 17-phenyl trinor Prostaglandin F<sub>2α</sub> 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<sub>2α</sub> diethyl amide, 17-p-PGF<sub>2α</sub>-NEt<sub>2</sub>  
**MF:** C<sub>27</sub>H<sub>41</sub>NO<sub>4</sub>  
**FW:** 443.6  
**Purity:** ≥98%  
**Stability:** ≥1 year at -20°C  
**Supplied as:** A solution in methyl acetate



### Laboratory Procedures

For long term storage, we suggest that 17-phenyl trinor prostaglandin F<sub>2α</sub> diethyl amide (17-phenyl trinor PGF<sub>2α</sub> diethyl amide) be stored as supplied at -20°C. It should be stable for at least one year.

17-phenyl trinor PGF<sub>2α</sub> diethyl amide is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the 17-phenyl trinor PGF<sub>2α</sub> diethyl amide under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of 17-phenyl trinor PGF<sub>2α</sub> diethyl amide in these solvents is approximately 20 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 17-phenyl trinor PGF<sub>2α</sub> diethyl amide is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of 17-phenyl trinor PGF<sub>2α</sub> diethyl amide in PBS (pH 7.2) is approximately 200 µg/ml. Store aqueous solutions of 17-phenyl trinor PGF<sub>2α</sub> diethyl amide on ice and use within 12 hours of preparation. Although the aqueous solutions of 17-phenyl trinor PGF<sub>2α</sub> diethyl amide may be stable for more than 12 hours, we strongly recommend using a fresh preparation each day.

17-phenyl trinor PGF<sub>2α</sub> diethyl amide is an analog of PGF<sub>2α</sub> 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.<sup>1</sup> Prostaglandin N-ethyl amides were recently introduced as alternative prostaglandin hypotensive prodrugs.<sup>2</sup> Studies have shown that bovine and human corneal tissue converts the N-ethyl amides of various PGs to the free acids with a conversion rate of about 2.5 µg/g corneal tissue/hr.<sup>3</sup> However, dialkyl amides such as 17-phenyl trinor PGF<sub>2α</sub> 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 prostaglandin amides have intrinsic intraocular hypotensive activity.

### References

1. Bito, L.Z. *Exp. Eye Res.* **38**, 181-184 (1984).
2. Woodward, D.F., Krauss, A.H.-P., Chen, J., *et al. Survey of Ophthalmology* **45**, S337-S345 (2001).
3. Maxey, K.M., Johnson, J., Camras, C.B., *et al. Survey of Ophthalmology* **47**(4), 34-40 (2002).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/16823](http://www.caymanchem.com/catalog/16823)

**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### SAFETY DATA

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