

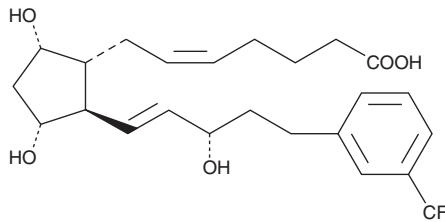
# PRODUCT INFORMATION



## 17-trifluoromethylphenyl trinor Prostaglandin F<sub>2α</sub>

Item No. 16890

**CAS Registry No.:** 221246-34-0  
**Formal Name:** (5Z)-7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(1E,3S)-3-hydroxy-5-[3-(trifluoromethyl)phenyl]-1-penten-1-yl]cyclopentyl]-5-heptenoic acid  
**Synonym:** 17-trifluoromethylphenyl trinor PGF<sub>2α</sub>  
**MF:** C<sub>24</sub>H<sub>31</sub>O<sub>5</sub>F<sub>3</sub>  
**FW:** 456.5  
**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-trifluoromethylphenyl trinor Prostaglandin F<sub>2α</sub> (17-trifluoromethylphenyl trinor PGF<sub>2α</sub>) 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 purged with an inert gas can be used. The solubility of 17-trifluoromethylphenyl trinor PGF<sub>2α</sub> in these solvents is approximately 50, 25, and 30 mg/ml, respectively.

17-trifluoromethylphenyl trinor PGF<sub>2α</sub> is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of 17-trifluoromethylphenyl trinor PGF<sub>2α</sub> should be diluted with the aqueous buffer of choice. The solubility of 17-trifluoromethylphenyl trinor PGF<sub>2α</sub> in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

A number of 17-phenyl trinor PGF<sub>2α</sub> derivatives have been approved for the treatment of glaucoma.<sup>1-3</sup> Of these, the unsubstituted or *meta*-substituted aromatic derivatives are the most potent FP receptor agonists.<sup>4</sup> 17-trifluoromethylphenyl trinor PGF<sub>2α</sub> bears an aromatic ring which is reminiscent of the trifluoromethylphenoxy ring of travoprost ((+)-fluprostenol isopropyl ester). As an ocular hypotensive agent, it would be expected that 17-trifluoromethylphenyl trinor PGF<sub>2α</sub> would act very much like the free acid of travoprost. 17-phenyl trinor PGF<sub>2α</sub> is a potent luteolytic and abortifacient, with a potency equal to or greater than fluprostenol and cloprostenol.<sup>4</sup>

### References

1. Woodward, D.F., Krauss, A.H., Chen, J., *et al.* The pharmacology of bimatoprost (Lumigan™). *Surv. Ophthalmol.* **45(Suppl. 4)**, S337-S345 (2001).
2. Stjerschantz, J.W. From PGF<sub>2α</sub>-isopropyl ester to latanoprost: A review of the development of xalatan. The proper lecture. *Invest. Ophthalmol. Vis. Sci.* **42(6)**, 1134-1145 (2001).
3. Sorbera, L.A. and Castañer, J. Travoprost. *Drugs Future* **25(1)**, 41-45 (2000).
4. deLong, M.A., Amburgey, J., Taylor, C., *et al.* Synthesis and in vitro evaluation of human FP-receptor selective prostaglandin analogues. *Bioorg. Med. Chem. Lett.* **10(14)**, 1519-1522 (2000).

#### 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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