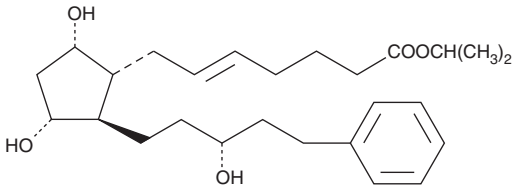
PRODUCT INFORMATION

5-trans Latanoprost

Item No. 16813

CAS Registry No.: 913258-34-1
Formal Name: (5E)-7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-5-heptenoic acid, 1-methylethyl ester
Synonym: 5,6-*trans* Latanoprost
MF: $C_{26}H_{40}O_5$
FW: 432.6
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

5-*trans* Latanoprost 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 DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of 5-*trans* latanoprost in these solvents is approximately 50 and 100 mg/ml, respectively. 5-*trans* Latanoprost is miscible in ethanol.

5-*trans* Latanoprost is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of 5-*trans* latanoprost should be diluted with the aqueous buffer of choice. The solubility of 5-*trans* latanoprost in PBS (pH 7.2) is approximately 1.5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

5-*trans* Latanoprost is a derivative of the FP receptor agonist latanoprost (free acid) (Item No. 16811) and the *trans* isomer of latanoprost (Item No. 16812).[1] Like other *trans* isomers of F-type prostaglandins, 5-*trans* latanoprost may have similar FP receptor activation and intraocular pressure reduction activities as the *cis* isomer. 5-*trans* Latanoprost is a potential impurity in commercial preparations of latanoprost. This product is intended as an analytical standard for the detection and quantification of this impurity.

Reference

1. Asendrych-Wicik, K., Zarczuk, J., Walaszek, K., *et al.* Trends in development and quality assessment of pharmaceutical formulations - F2α analogues in the glaucoma treatment. *Eur. J. Pharm. Sci.* **180**, 106315 (2023).

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