

# PRODUCT INFORMATION



## 15(S)-Latanoprost

Item No. 16818

CAS Registry No.: 145773-22-4

Formal Name: (5Z)-7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3S)-3-hydroxy-5-phenylpentyl]cyclopentyl]-5-heptenoic acid, 1-methylethyl ester

Synonym: 15-*epi* Latanoprost

MF: C<sub>26</sub>H<sub>40</sub>O<sub>5</sub>

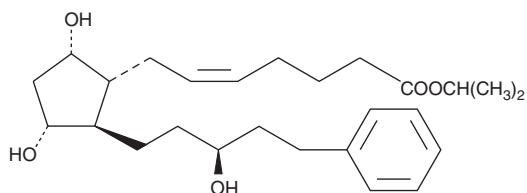
FW: 432.6

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

15(S)-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 ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of 15(S)-latanoprost in these solvents is approximately 100 mg/ml.

15(S)-Latanoprost is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of 15(S)-latanoprost should be diluted with the aqueous buffer of choice. 15(S)-Latanoprost has a solubility of 0.08 mg/ml in a 1:12 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

15(S)-Latanoprost is an analog of latanoprost in which the hydroxyl at carbon 15 is inverted relative to latanoprost. The IC<sub>50</sub> values for the free acid forms of latanoprost and 15(S)-latanoprost were determined to be 3.6 nM and 24 nM, respectively, in a FP receptor binding assay using the cat iris sphincter muscle.<sup>1</sup> A 3 µg dose of 15(S)-latanoprost caused a 1 mmHg reduction of IOP in normotensive cynomolgus monkeys.<sup>1</sup> 15(S)-Latanoprost is a potential impurity in most commercial preparations of the latanoprost bulk drug product.

### Reference

1. Resul, B., Stjernschantz, J., No, K., et al. Phenyl-substituted prostaglandins: Potent and selective antiglaucoma agents. *J. Med. Chem.* **36**(2), 243-248 (1993).

#### 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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