

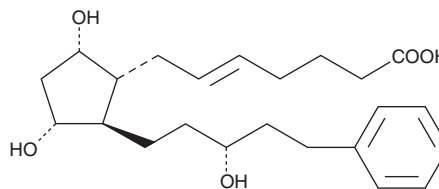
PRODUCT INFORMATION



5-*trans* Latanoprost (free acid)

Item No. 10129

CAS Registry No.: 903549-49-5
Formal Name: 9 α ,11 α ,15S-trihydroxy-17-phenyl-18,19,20-trinor-prost-5E-en-1-oic acid
Synonym: 5,6-*trans* Latanoprost (free acid)
MF: C₂₃H₃₄O₅
FW: 390.5
Purity: \geq 98%
Stability: \geq 2 years at -20°C
Supplied as: A solution in methyl acetate



Laboratory Procedures

For long term storage, we suggest that 5-*trans* latanoprost (free acid) be stored as supplied at -20°C. It should be stable for at least two years.

5-*trans* Latanoprost (free acid) is supplied as a solution in methyl acetate. If aqueous stock solutions are required for biological experiments, they can best be prepared by diluting the organic solvent into aqueous buffers or isotonic saline. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Latanoprost (Item No. 16812) is an F-series prostaglandin (PG) analog which has been approved for use as an ocular hypotensive drug.¹ Latanoprost is an isopropyl ester, a prodrug form which is converted to latanoprost (free acid) by endogenous esterase enzymes. The free acid form is 200 times more potent than latanoprost as a ligand for the human recombinant FP receptor.² 5-*trans* Latanoprost (free acid) is an isomer of latanoprost (free acid) wherein the double bond between carbons 5 and 6 has been changed from *cis* (Z) to *trans* (E). The *trans* isomer of latanoprost occurs as an impurity in commercial preparations of the bulk drug product. The present compound was prepared primarily as an analytical standard for detection and quantitation of this impurity. From what can be inferred from the study of other *trans* isomers of F-type PGs, the biological activity of this isomer is likely to be similar to that of the *cis* isomer. However, there are no specific published reports on the biological activity, and on reducing intraocular pressure in particular, of 5-*trans* latanoprost.

References

1. Stjernschantz, J. and Resul, B. Phenyl substituted prostaglandin analogs for glaucoma treatment. *Drugs of the Future* **17**, 691-704 (1992).
2. Abramovitz, M., Adam, M., Boie, Y., *et al.* The utilization of recombinant prostanoid receptors to determine the affinities and selectivities of prostaglandins and related analogs. *Biochim. Biophys. Acta* **1483**, 285-293 (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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