

PRODUCT INFORMATION

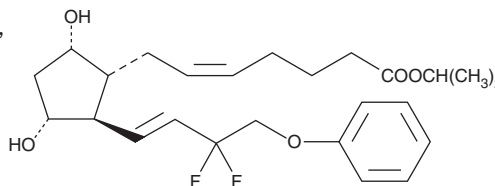


Tafuprost

Item No. 10005440

CAS Registry No.: 209860-87-7
Formal Name: (5Z)-7-[(1R,2R,3R,5S)-2-[(1E)-3,3-difluoro-4-phenoxy-1-buten-1-yl]-3,5-dihydroxycyclopentyl]-5-heptenoic acid, 1-methylethyl ester

Synonym: AFP-168
MF: C₂₅H₃₄F₂O₅
FW: 452.5
Purity: ≥98%
Storage: -20°C
Stability: ≥2 years
Supplied as: A solution in methyl acetate



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Tafuprost 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 tafuprost in these solvents is at least 30 mg/ml.

Tafuprost is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of tafuprost should be diluted with the aqueous buffer of choice. Tafuprost has a solubility of 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Tafuprost is a prodrug form of the FP receptor agonist tafuprost (free acid) (Item No. 10005439) and a derivative of prostaglandin F_{2α} (PGF_{2α}; Item Nos. 16010 | 16020).¹ It decreases pupillary diameter in cats when applied topically at doses of 0.0001 or 0.001% v/v. Ocular administration of tafuprost (0.0005% v/v) reduces intraocular pressure in normotensive monkeys. Formulations containing tafuprost have been used in the treatment of open-angle glaucoma and ocular hypertension.

Reference

1. Nakajima, T., Matsugi, T., Goto, W., *et al.* New fluoroprostaglandin F_{2α} derivatives with prostanoid FP-receptor agonistic activity as potent ocular-hypotensive agents. *Biol. Pharm. Bull.* **26(12)**, 1691-1695 (2003).

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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