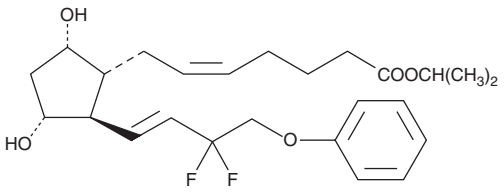
# PRODUCT INFORMATION

## Tafluprost

*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:** $C_{25}H_{34}F_2O_5$
**FW:** 452.5
**Purity:** ≥98%
**Storage:** -20°C
**Stability:** ≥2 years
**Supplied as:** A solution in ethanol




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

### Laboratory Procedures

Tafluprost is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol 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 tafluprost in these solvents is at least 30 mg/ml.

### Description

Tafluprost is a prodrug form of the FP receptor agonist tafluprost (free acid) (Item No. 10005439) and a derivative of prostaglandin $F_{2\alpha}$ ($PGF_{2\alpha}$; 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 tafluprost (0.0005% v/v) reduces intraocular pressure in normotensive monkeys. Formulations containing tafluprost 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 $F_{2\alpha}$ derivatives with prostanoid FP-receptor agonistic activity as potent ocular-hypotensive agents. *Biol. Pharm. Bull.* **26(12)**, 1691-1695 (2003).



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