

Product Name: Tafluprost

Catalog No.: 6427

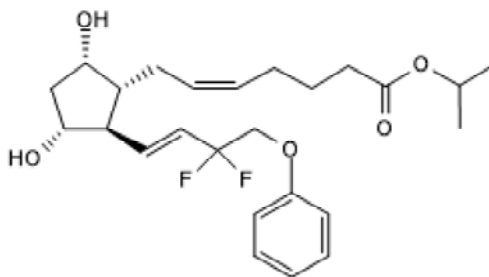
Batch No.: 1

CAS Number: 209860-87-7

IUPAC Name: 1-Methylethyl (5-Z)-7-[(1R,2R,3R,5S)-2-[(1E)-3,3-difluoro-4-phenoxy-1-buten-1-yl]-3,5-dihydroxycyclopentyl]-5-heptenoate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₂₅ H ₃₄ F ₂ O ₅
Batch Molecular Weight:	452.53
Physical Appearance:	Colourless liquid
Solubility:	Soluble in methyl acetate (supplied pre-dissolved -10mg/ml)
Storage:	Store at -20°C
Batch Molecular Structure:	



2. ANALYTICAL DATA

HPLC:	Shows 95.4% purity
¹H NMR:	Consistent with structure
Mass Spectrum:	Consistent with structure

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Very high affinity FP receptor agonist ($K_i = 0.4$ nM). Reduces intraocular pressure (IOP) in animal models of ocular hypertension and normal animals.

Physical and Chemical Properties:

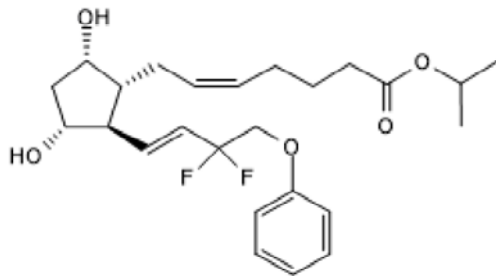
Batch Molecular Formula: $C_{25}H_{34}F_2O_5$

Batch Molecular Weight: 452.53

Physical Appearance: Colourless liquid

Minimum Purity: >95%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

Soluble in methyl acetate (supplied pre-dissolved -10mg/ml). This compound is supplied pre-dissolved in Methyl acetate (10mg/ml). To change the solvent, evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the chosen solvent (preferably purged with nitrogen beforehand). The solubility of Tafluprost is greater than 100mM in both DMSO and Ethanol. These stock solutions can then be diluted further into aqueous solutions, as required. We do not recommend storing aqueous solutions for more than a day.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Takagi *et al* (2004) Pharmacological characteristics of AFP-168 (tafluprost), a new prostanoid FP receptor agonist, as an ocular hypotensive drug. *Exp. Eye Res.* **78** 767. PMID: 15037111.

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