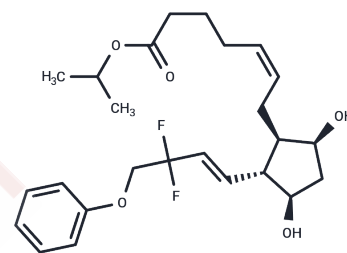


Tafluprost

Chemical Properties

CAS No. :	209860-87-7
Formula:	C ₂₅ H ₃₄ F ₂ O ₅
Molecular Weight:	452.53
Storage:	Pure form: -20°C for 3 years In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Tafluprost, a prostaglandin analog, is the selective agonist of fluoroprostaglandin (FP) receptor PGF ₂ α.
Targets(IC50)	Others, Prostaglandin Receptor
In vivo	Tafluprost showed significant IOP-lowering effects without any safety concerns in patients with various types of glaucoma and OH in daily clinical practice and tafluprost is highly effective in any therapeutic pattern [1]. Tafluprost with reduced BAK has potential as a superior antiglaucoma drug, not only for its IOP-lowering effect but also for its good corneal safety profile [2]. Tafluprost single-use vials treatment was effective in reducing IOP over the 3 years of this study, but visual field performance worsened by 10.3%-13.8% in patients with normal-tension glaucoma [3].

Solubility Information

Solubility	DMSO: 250 mg/mL (552.45 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (11.05 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2098 mL	11.049 mL	22.098 mL
5 mM	0.442 mL	2.2098 mL	4.4196 mL
10 mM	0.221 mL	1.1049 mL	2.2098 mL
50 mM	0.0442 mL	0.221 mL	0.442 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Kuwayama, Y. and A. Nomura, Prospective observational post-marketing study of tafluprost for glaucoma and ocular hypertension: short-term efficacy and safety. *Adv Ther*, 2014. 31(4): p. 461-71.

Wu S, Liu C, Tang J, et al. Tafluprost promotes axon regeneration after optic nerve crush via Zn²⁺-mTOR pathway. *Neuropharmacology*.2023: 109746.

Kumagami, T., et al., Comparison of corneal safety and intraocular pressure-lowering effect of tafluprost ophthalmic solution with other prostaglandin ophthalmic solutions. *J Ocul Pharmacol Ther*, 2014. 30(4): p. 340-5.

Inoue, K., A. Tanaka, and G. Tomita, Effects of tafluprost treatment for 3 years in patients with normal-tension glaucoma. *Clin Ophthalmol*, 2013. 7: p. 1411-6.

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