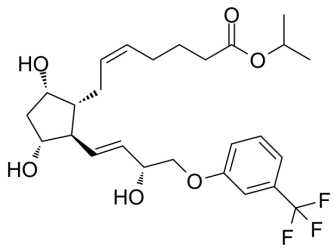
Travoprost

Cat. No.:	HY-B0584
CAS No.:	157283-68-6
Molecular Formula:	$C_{26}H_{35}F_3O_6$
Molecular Weight:	500.55
Target:	Prostaglandin Receptor
Pathway:	GPCR/G Protein
Storage:	Pure form -20°C 3 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

Ethanol : 60 mg/mL (119.87 mM; Need ultrasonic)
DMSO : ≥ 41.67 mg/mL (83.25 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	1.9978 mL	9.9890 mL	19.9780 mL
5 mM	0.3996 mL	1.9978 mL	3.9956 mL
10 mM	0.1998 mL	0.9989 mL	1.9978 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (4.16 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (4.16 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.16 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Travoprost (Fluprostenol isopropyl ester), an isopropyl ester prodrug, is a high affinity, selective FP prostaglandin full receptor agonist. Travoprost has the ocular hypotensive efficacy and has the potential for glaucoma and ocular hypertension[1].

IC_{50} & Target

FP

In Vitro	Travoprost has sub-micromolar affinity for the DP, EP1, EP3, EP4, IP, and TP receptors[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Travoprost produces a lower incidence of ocular irritation than PGF20 isopropyl ester at a dose of 1 μg in the New Zealand albino (NZA) rabbit. Topical ocular application of Travoprost produces a marked miotic effect in cats following doses of 0.01, 0.03 and 0.1 μg. In the ocular hypertensive monkey, b.i.d. application of 0.1 and 0.3 μg of travoprost afforded peak reduction in intraocular pressure (IOP) of 22.7% and 28.6%, respectively. Topical application of travoprost was well tolerated in rabbits, cats and monkeys, causing no ocular irritation or discomfort at doses up to 1 μg[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Front Pharmacol. 2019 May 24;10:549.

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REFERENCES

[1]. M R Hellberg, et al. Preclinical efficacy of travoprost, a potent and selective FP prostaglandin receptor agonist. J Ocul Pharmacol Ther. 2001 Oct;17(5):421-32.

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