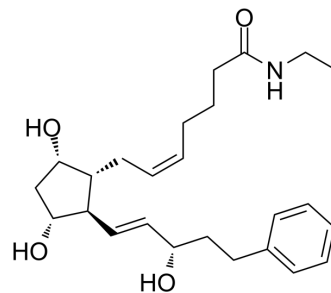


## Bimatoprost

<b>Cat. No.:</b>	HY-B0191	
<b>CAS No.:</b>	155206-00-1	
<b>Molecular Formula:</b>	C <sub>25</sub> H <sub>37</sub> NO <sub>4</sub>	
<b>Molecular Weight:</b>	415.57	
<b>Target:</b>	Prostaglandin Receptor	
<b>Pathway:</b>	GPCR/G Protein	
<b>Storage:</b>	Powder	-20°C 3 years
	In solvent	-80°C 6 months
		-20°C 1 month



### SOLVENT & SOLUBILITY

#### In Vitro

Methanol : 250 mg/mL (601.58 mM; Need ultrasonic)  
 DMSO : ≥ 100 mg/mL (240.63 mM)  
 \* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.4063 mL	12.0317 mL	24.0633 mL
	5 mM	0.4813 mL	2.4063 mL	4.8127 mL
	10 mM	0.2406 mL	1.2032 mL	2.4063 mL

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

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (6.02 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (6.02 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (6.02 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Bimatoprost is a prostaglandin analog used topically (as eye drops) to control the progression of glaucoma and in the management of ocular hypertension. Target: Prostaglandin Receptor. Bimatoprost is a prostaglandin analog/prodrug used topically (as eye drops) to control the progression of glaucoma and in the management of ocular hypertension. It reduces intraocular pressure (IOP) by increasing the outflow of aqueous fluid from the eyes. In December 2008, the indication to lengthen eyelashes was approved by the U.S. Food and Drug Administration (FDA); the cosmetic formulation of bimatoprost is sold as Latisse. In 2008-2011, at least three case series suggested that bimatoprost has the ability to reduce adipose (fat)

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tissue. Bimatoprost activates prostamide alpha F2 receptors found in the hair follicle to stimulate its growth rate. Research led by Professor Randall and the University of Bradford found that it may also offer a treatment for scalp hair regrowth in trials conducted on samples taken from men undergoing hair transplants. According to Allergan's package labeling, users of its Latisse cosmetic product didn't develop darker irises in clinical studies; however, "patients should be advised about the potential for increased brown iris pigmentation which is likely to be permanent."

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## REFERENCES

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- [1]. Park J, et al. Changes to upper eyelid orbital fat from use of topical bimatoprost, travoprost, and latanoprost. *Jpn J Ophthalmol.* 2011 Jan;55(1):22-7.
- [2]. Filippopoulos T, et al. Periorbital changes associated with topical bimatoprost. *Ophthal Plast Reconstr Surg.* 2008 Jul-Aug;24(4):302-7.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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