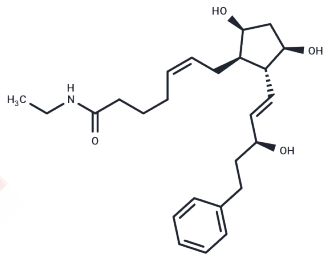
Data Sheet (Cat.No.T2538)

TargetMol

Bimatoprost

Chemical Properties



CAS No. : 155206-00-1

Formula: C25H37NO4

Molecular Weight: 415.57

Storage: Store at low temperature,Keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Bimatoprost (AGN 192024) is a cloprostenol-derived amide that is used as an antihypertensive agent in the treatment of open-angle glaucoma and ocular hypertension.
Targets(IC50)	MMP,Prostaglandin Receptor
In vitro	Bimatoprost is an effective prostaglandin FP receptor agonist, capable of directly inducing a robust and rapid return of calcium ions to baseline levels. It directly activates FP prostaglandin receptors in rats, mice, and humans.
In vivo	Bimatoprost displaces [3H] prostaglandin F (2alpha) binding to FP receptors with a Ki of 6.31 μM. It rapidly mobilizes intracellular calcium in 3T3 mouse fibroblasts expressing FP receptors (EC50: 2.2 μM) and human embryonic kidney cells with human FP receptors (EC50: 2.94 μM). Bimatoprost upregulates Cyr61 expression in feline irises and mildly stimulates aqueous humor outflow rate, increasing it by 13% during the day and 14% at night, while reducing tonographic outflow by 26%, thereby lowering intraocular pressure.

Solubility Information

Solubility	DMSO: 250 mg/mL (601.58 mM),Sonication is recommended. Ethanol: 77 mg/mL (185.29 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (4.81 mM),Sonication is recommended. 10% DMSO+90% Saline: 10 mg/mL (24.06 mM),Suspension. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
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
50 mM	0.0481 mL	0.2406 mL	0.4813 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

Brubaker RF, et al. Surv Ophthalmol, 2001, 45 Suppl 4, S347-351.
Sharif NA, et al. Eur J Pharmacol, 2001, 432(2-3), 211-213.
Liang Y, et al. J Biol Chem, 2003, 278(29), 27267-27277.
Spada CS, et al. Exp Eye Res, 2005, 80(1), 135-145.
Kelly CR, et al. J Pharmacol Exp Ther, 2003, 304(1), 238-245.