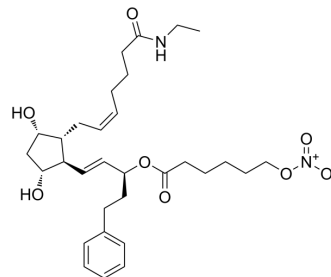


Bimatoprost grenod

Cat. No.:	HY-139419
CAS No.:	1194396-71-8
Molecular Formula:	C ₃₁ H ₄₆ N ₂ O ₈
Molecular Weight:	574.71
Target:	Prostaglandin Receptor
Pathway:	GPCR/G Protein
Storage:	-20°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (174.00 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	1.7400 mL	8.7000 mL	17.4001 mL
5 mM	0.3480 mL	1.7400 mL	3.4800 mL
10 mM	0.1740 mL	0.8700 mL	1.7400 mL

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

BIOLOGICAL ACTIVITY

Description

Bimatoprost grenod (NCX 470) is a second-generation nitric oxide (NO)-donating prostaglandin analogue. Bimatoprost grenod effectively lowers intraocular pressure (IOP) in animal models of ocular hypertension and glaucoma by activating bimatoprost-mediated uveoscleral outflow and NO mediated conventional outflow. Bimatoprost grenod can be used for the research of cular hypertension and glaucoma^{[1][2]}.

In Vivo

Bimatoprost grenod shows a better intraocular pressure-lowering efficacy than that of equimolar doses of bimatoprost in well-established animal models of glaucoma and ocular hypertension^[1].
Bimatoprost grenod (0.14% 30 µL; instillation; once) reduces IOP in transient ocular hypertensive rabbits^[2].
Bimatoprost grenod (0.042% 30 µL; instillation; once) is more effective than equimolar bimatoprost in cynomolgus monkeys with laser-induced ocular hypertension (OHT-monkeys), and normotensive dogs (ONT-dogs) at 18 hours post dosing^[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	New Zealand white rabbits with 0.1 mL 5% sodium chloride solution injection ^[2]
Dosage:	0.14%

Administration:	Instillation; 0.14% 30 µL; once
Result:	Significantly blunted the IOP rise throughout the experimental period in transiently ocular hypertensive New Zealand white rabbits.

REFERENCES

- [1]. Impagnatiello F, et al. Prostaglandin analogues and nitric oxide contribution in the treatment of ocular hypertension and glaucoma. Br J Pharmacol. 2019 Apr;176(8):1079-1089.
- [2]. Impagnatiello F, et al. Intraocular Pressure-Lowering Activity of NCX 470, a Novel Nitric Oxide-Donating Bimatoprost in Preclinical Models. Invest Ophthalmol Vis Sci. 2015 Oct;56(11):6558-64.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA