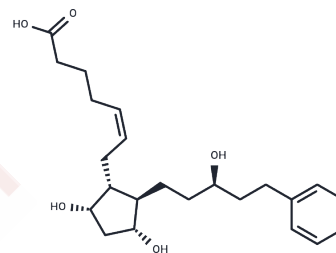


## Latanoprost acid

## Chemical Properties

CAS No. :	41639-83-2
Formula:	C <sub>23</sub> H <sub>34</sub> O <sub>5</sub>
Molecular Weight:	390.51
Storage:	Store at low temperature
	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	Latanoprost acid is a selective agonist of prostanoid receptors and inhibits RANKL-induced osteoclastogenesis and function through the inhibition of c-fos/NFATc1 pathway. Latanoprost acid can be used in studies about lowering pressure inside the eyes.
Targets(IC50)	GPCR, Prostaglandin Receptor
In vitro	Latanoprost acid (10, 20 μM) reduces the protein expressions of c-fos and NFATc1 thus inhibiting the mature osteoclast formation in BMMs. Latanoprost acid (10 μM) and RANKL (50 ng/ml) significantly inhibit ERK, p38, AKT and JNK[1].
In vivo	Latanoprost acid (i.p.; 20 mg/kg; once daily for 7 days) effectively prevents LPS-induced bone destruction [1].

## Solubility Information

Solubility	DMSO: 27.5 mg/mL (70.42 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: 2 mg/mL (5.12 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

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	1mg	5mg	10mg
1 mM	2.5608 mL	12.8038 mL	25.6075 mL
5 mM	0.5122 mL	2.5608 mL	5.1215 mL
10 mM	0.2561 mL	1.2804 mL	2.5608 mL
50 mM	0.0512 mL	0.2561 mL	0.5122 mL

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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

Weinreb RN, et al. Effects of prostaglandins on the aqueous humor outflow pathways. *Surv Ophthalmol.* 2002 Aug; 47 Suppl 1:S53-64.

Xu X, et al. The prevention of latanoprost on osteoclastogenesis in vitro and lipopolysaccharide-induced murine calvaria osteolysis in vivo. *J Cell Biochem.* 2018 Jun;119(6):4680-4691.

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