

Latanoprost acid

Chemical Properties

CAS No. : 41639-83-2

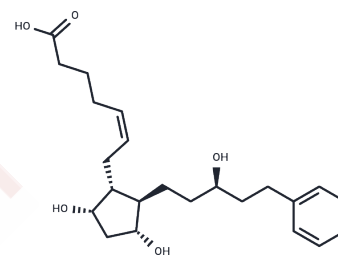
Formula: C₂₃H₃₄O₅

Molecular Weight: 390.51

Store at low temperature

Storage: 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: 125 mg/mL (320.09 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+90% Saline: 10 mg/mL (25.61 mM), Solution. 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

| | 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 |

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 osteoclastgenesis in vitro and lipopolysaccharide-induced murine calvaria osteolysis in vivo. *J Cell Biochem.* 2018 Jun;119(6):4680-4691.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481