Limaprost

Cat. No.: HY-B0683

CAS No.: 74397-12-9

Molecular Formula: $C_{22}H_{36}O_5$

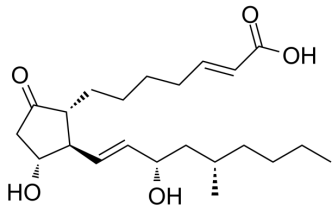
Molecular Weight: 380.52

Target: PGE synthase

Pathway: Immunology/Inflammation

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 40 mg/mL (105.12 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.6280 mL	13.1399 mL	26.2798 mL
5 mM	0.5256 mL	2.6280 mL	5.2560 mL
10 mM	0.2628 mL	1.3140 mL	2.6280 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (5.47 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (5.47 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.47 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Limaprost (OP1206) is a PGE1 analogue and a potent and orally active vasodilator. Limaprost increases blood flow and inhibits platelet aggregation. Limaprost pain relief, has antianginal effects, and can be used for ischaemic symptoms research[1][2].

In Vitro

Limaprost inhibits the IL-1-mediated induction of nerve growth factor (NGF) in a concentration-dependent manner with an IC_{50} value of 70.9 nM human IVD cells[3].

	MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Limaprost (OP1206) given orally at more than 100 μg/kg relieves Argipressin-induced ST depression of rat electrocardiogram (ECG)[1]. Intra-coronary injection of Limaprost (OP1206; 1-100 ng/kg) in dogs results in a remarkable increase of coronary blood flow without any influence on heart rate, blood pressure, myocardial oxygen consumption and redox potential[1]. Resistance in both large and small vessels of dog coronary artery is decreased by intravenous injection of Limaprost (OP1206; 1-3 mg/kg)[1]. Platelet aggregation, adhesiveness, bleeding time, and thrombocytopenia induced by ADP and collagen infusion in guinea-pigs are inhibited by oral administration of Limaprost (OP1206) at the same doses or doses less than those relieving Argipressin-induced ST depression of ECG[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Technol Cancer Res Treat. 2018 Jan 1;17:1533033818809984.

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REFERENCES

[1]. Tsuboi T, et al. Pharmacological evaluation of OP 1206, a prostaglandin E1 derivative, as an antianginal agent. Arch Int Pharmacodyn Ther. 1980 Sep;247(1):89-102.

[2]. Swainston Harrison T, et al. Limaprost. Drugs. 2007;67(1):109-18; discussion 119-20.

[3]. Murata K, et al. PGE1 Attenuates IL-1β-induced NGF Expression in Human Intervertebral Disc Cells. Spine (Phila Pa 1976). 2016 Jun;41(12):E710-6.

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