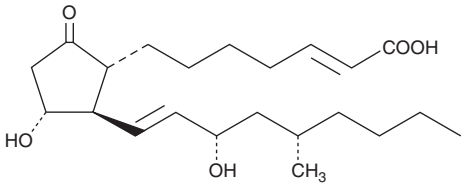
PRODUCT INFORMATION

Limaprost

Item No. 13810

CAS Registry No.:	74397-12-9
Formal Name:	11α,15S-dihydroxy-17S,20-dimethyl-9-oxo-prosta-2E,13E-dien-1-oic acid
Synonyms:	17α,20-dimethyl-Δ^2-PGE_1, 17α,20-dimethyl-Δ^2-Prostaglandin E_1
MF:	$C_{22}H_{36}O_5$
FW:	380.5
Purity:	≥98%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Limaprost is supplied as a crystalline solid. A stock solution may be made by dissolving the limaprost in the solvent of choice, which should be purged with an inert gas. Limaprost is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of limaprost in these solvents is approximately 50, 130, and 30 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of limaprost can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of limaprost in PBS (pH 7.2) is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Limaprost is an analog of PGE_1 with structural modifications intended to give it a prolonged half-life and greater potency. Limaprost is orally active in both rats and guinea pigs at doses of 100 µg/kg as an inhibitor of ADP and collagen induced platelet aggregation. Limaprost is 10-1,000 times more potent than PGE_1 as an inhibitor of platelet adhesiveness measured *in vitro*. Intra-coronary injection (100 ng/kg) or intravenous injection (3 µg/kg) in anesthetized dogs causes vasodilation and increased coronary blood flow by 60-80%. Significant hypotensive effects were seen at 100 and 300 µg/kg orally in rats.{6808}

Reference

1. Tsuboi, T., Hatano, N., Nakatsuji, K., *et al.* Pharmacological evaluation of OP 1206, a prostaglandin E_1 derivative, as an antianginal agent. *Arch. Int. Pharmacodyn. Ther.* **247(1)**, 89-102 (1980).

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