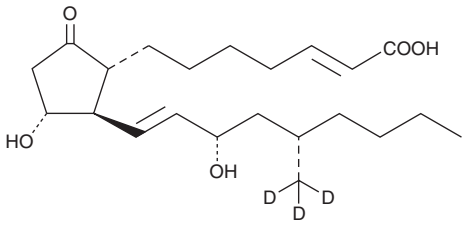
PRODUCT INFORMATION

Limaprost-d_3

Item No. 25416

CAS Registry No.: 1263190-37-9
Formal Name: (E)-7-((1R,2R,3R)-3-hydroxy-2-((3S,5S,E)-3-hydroxy-5-(methyl-d_3)non-1-en-1-yl)-5-oxocyclopentyl)hept-2-enoic acid
Synonyms: 17α,20-dimethyl-Δ^2-PGE_1-d_3, 17α,20-dimethyl-Δ^2-Prostaglandin E_1-d_3
MF: $C_{22}H_{33}D_3O_5$
FW: 383.5
Chemical Purity: ≥90% (Limaprost)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_3); ≤1% d_0
Supplied as: A 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-d_3 is intended for use as an internal standard for the quantification of limaprost (Item No. 13810) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Limaprost-d_3 is supplied as a solid. A stock solution may be made by dissolving the limaprost-d_3 in the solvent of choice, which should be purged with an inert gas. Limaprost-d_3 is soluble in the organic solvent methanol.

Description

Limaprost is an analog of prostaglandin E_1 (PGE_1; Item No. 13010) 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.[1]

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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