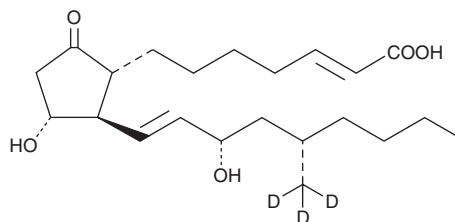


# PRODUCT INFORMATION



## Limaprost-d<sub>3</sub> 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<sub>3</sub>)non-1-en-1-yl)-5-oxocyclopentyl)hept-2-enoic acid  
**Synonyms:** 17 $\alpha$ ,20-dimethyl- $\Delta^2$ -PGE<sub>1</sub>-d<sub>3</sub>,  
17 $\alpha$ ,20-dimethyl- $\Delta^2$ -Prostaglandin E<sub>1</sub>-d<sub>3</sub>  
**MF:** C<sub>22</sub>H<sub>33</sub>D<sub>3</sub>O<sub>5</sub>  
**FW:** 383.5  
**Chemical Purity:**  $\geq$ 90% (Limaprost)  
**Deuterium Incorporation:**  $\geq$ 99% deuterated forms (d<sub>1</sub>-d<sub>3</sub>);  $\leq$ 1% d<sub>0</sub>  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:**  $\geq$ 4 years



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

### Laboratory Procedures

Limaprost-d<sub>3</sub> 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<sub>3</sub> is supplied as a solid. A stock solution may be made by dissolving the limaprost-d<sub>3</sub> in the solvent of choice, which should be purged with an inert gas. Limaprost-d<sub>3</sub> is soluble in the organic solvent methanol.

### Description

Limaprost is an analog of prostaglandin E<sub>1</sub> (PGE<sub>1</sub>; 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  $\mu$ g/kg as an inhibitor of ADP and collagen-induced platelet aggregation. Limaprost is 10-1,000 times more potent than PGE<sub>1</sub> as an inhibitor of platelet adhesiveness measured *in vitro*. Intra-coronary injection (100 ng/kg) or intravenous injection (3  $\mu$ g/kg) in anesthetized dogs causes vasodilation and increased coronary blood flow by 60-80%. Significant hypotensive effects were seen at 100 and 300  $\mu$ g/kg orally in rats.<sup>1</sup>

### Reference

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

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
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### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM