

# PRODUCT INFORMATION

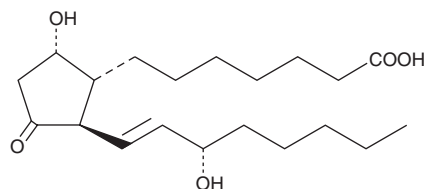


## Prostaglandin D<sub>1</sub> Quant-PAK Item No. 10006842

### Prostaglandin D<sub>1</sub>

**CAS Registry No.:** 17968-82-0  
**Formal Name:** 9 $\alpha$ ,15S-dihydroxy-11-oxo-prost-13E-en-1-oic acid  
**MF:** C<sub>20</sub>H<sub>34</sub>O<sub>5</sub>  
**FW:** 354.5  
**Purity:**  $\geq$ 98%  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:**  $\geq$ 2 years

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



### Laboratory Procedures

This prostaglandin D<sub>1</sub> (PGD<sub>1</sub>) Quant-PAK contains 50  $\mu$ g of PGD<sub>1</sub>-d<sub>4</sub> and 2-4 mg of PGD<sub>1</sub> (please see the vial for exact amount and concentration).

PGD<sub>1</sub> is supplied as a crystalline solid. A stock solution may be made by dissolving the PGD<sub>1</sub> in the solvent of choice. PGD<sub>1</sub> is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of PGD<sub>1</sub> in these solvents is approximately 75, 50, and 100 mg/ml, respectively.

PGD<sub>1</sub>-d<sub>4</sub> is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of PGD<sub>1</sub>-d<sub>4</sub> in these solvents is approximately 75, 50, and 100 mg/ml, respectively.

PGD<sub>1</sub>-d<sub>4</sub> contains four deuterium atoms at the 3, 3', 4, and 4' positions. It is intended for use as an internal standard for the quantification of PGD<sub>1</sub> (Item No. 12000) 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).

PGD<sub>1</sub> is the theoretical D-series metabolite of dihomo- $\gamma$ -linolenic acid, but to date it has not been isolated as a natural product. It is an inhibitor of ADP-induced platelet aggregation in humans with an IC<sub>50</sub> value of 320 ng/ml, about 1/10 as potent as PGD<sub>2</sub>.<sup>1</sup>

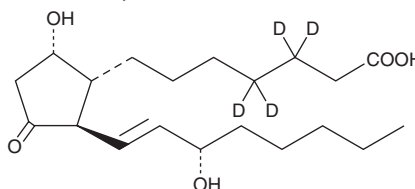
### Reference

1. Bundy, G.L., Morton, D.R., Peterson, D.C., *et al.* Synthesis and platelet aggregation inhibiting activity of prostaglandin D analogues. *J. Med. Chem.* **26**, 790-799 (1983).

### Prostaglandin D<sub>1</sub>-d<sub>4</sub>

**Formal Name:** 9 $\alpha$ ,15S-dihydroxy-11-oxo-prost-13E-en-1-oic-3,3,4,4-d<sub>4</sub> acid  
**MF:** C<sub>20</sub>H<sub>30</sub>D<sub>4</sub>O<sub>5</sub>  
**FW:** 358.5  
**Chemical Purity:**  $\geq$ 98% (Prostaglandin D<sub>1</sub>)  
**Deuterium Incorporation:**  $\geq$ 99% deuterated forms (d<sub>1</sub>-d<sub>4</sub>);  $\leq$ 1% d<sub>0</sub>  
**Supplied as:** A solution in methyl acetate  
**Storage:** -20°C  
**Stability:**  $\geq$ 2 years

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



#### 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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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