

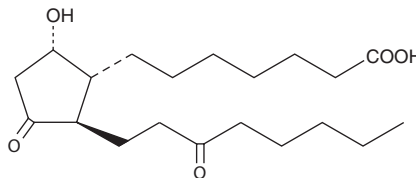
# Product Information



## 13,14-dihydro-15-keto Prostaglandin D<sub>1</sub>

Catalog No. 10010425

<b>Formal Name:</b>	9 $\alpha$ -hydroxy-11,15-dioxo-prost-1-oic acid
<b>Synonym:</b>	13,14-dihydro-15-keto PGD <sub>1</sub>
<b>MF:</b>	C <sub>20</sub> H <sub>34</sub> O <sub>5</sub>
<b>FW:</b>	354.5
<b>Purity:</b>	≥98%
<b>Stability:</b>	≥1 year at -20°C
<b>Supplied as:</b>	A solution in methyl acetate



### Laboratory Procedures

For long term storage, we suggest that 13,14-dihydro-15-keto prostaglandin D<sub>1</sub> (13,14-dihydro-15-keto PGD<sub>1</sub>) be stored as supplied at -20°C. It should be stable for at least one year.

13,14-dihydro-15-keto PGD<sub>1</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 (DMF) purged with an inert gas can be used. The solubility of 13,14-dihydro-15-keto PGD<sub>1</sub> in ethanol and DMF is approximately 50 mg/ml and approximately 30 mg/ml in DMSO.

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. If an organic solvent-free solution of 13,14-dihydro-15-keto PGD<sub>1</sub> is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of 13,14-dihydro-15-keto PGD<sub>1</sub> in PBS, pH 7.2, is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

PGD<sub>1</sub> is the theoretical D-series metabolite of dihomo- $\gamma$ -linolenic acid (DGLA), 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> 13,14-dihydro-15-keto PGD<sub>1</sub> is the theoretical metabolite of PGD<sub>1</sub> *via* the 15-hydroxy PG dehydrogenase metabolic pathway. No biological studies for this compound have been reported.

### 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).

### Related Products

Prostaglandin D<sub>1</sub> - Cat. No. 12000 • Prostaglandin D<sub>1</sub> Alcohol - Cat. No. 12002 • Prostaglandin D<sub>1</sub>-d<sub>4</sub> - Cat. No. 312000 • Prostaglandin D<sub>1</sub> Quant-PAK - Cat. No. 10006842

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**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent under separate cover to the MSDS supervisor at your institution.

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