



# SZABO SCANDIC

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## Produktinformation



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- Expressversand

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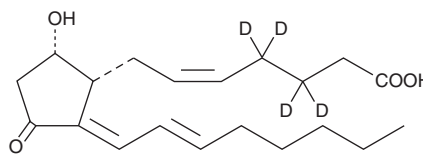
# PRODUCT INFORMATION



## 15-deoxy- $\Delta^{12,14}$ -Prostaglandin D<sub>2</sub>-d<sub>4</sub>

Item No. 19343

**Formal Name:** *rac*-(Z)-7-((1R,5S,E)-5-hydroxy-2-((E)-oct-2-en-1-ylidene)-3-oxocyclopentyl)hept-5-enoic-3,3,4,4-d<sub>4</sub> acid  
**Synonym:** 15-deoxy- $\Delta^{12,14}$ -PGD<sub>2</sub>-d<sub>4</sub>  
**MF:** C<sub>20</sub>H<sub>26</sub>D<sub>4</sub>O<sub>4</sub>  
**FW:** 338.5  
**Chemical Purity:**  $\geq 98\%$  (15-deoxy- $\Delta^{12,14}$ -Prostaglandin D<sub>2</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:**  $\geq 1$  year



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

### Laboratory Procedures

15-deoxy- $\Delta^{12,14}$ -Prostaglandin D<sub>2</sub>-d<sub>4</sub> (15-deoxy- $\Delta^{12,14}$ -PGD<sub>2</sub>-d<sub>4</sub>) is intended for use as an internal standard for the quantification of 15-deoxy- $\Delta^{12,14}$ -PGD<sub>2</sub> (Item No. 12700) 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).

15-deoxy- $\Delta^{12,14}$ -PGD<sub>2</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 15-deoxy- $\Delta^{12,14}$ -PGD<sub>2</sub>-d<sub>4</sub> in these solvents is approximately 20 mg/ml.

### Description

5-deoxy- $\Delta^{12,14}$ -PGD<sub>2</sub> is a metabolite of PGD<sub>2</sub> (Item No. 12010).<sup>1</sup> It is an agonist of PGD<sub>2</sub> receptor 2 (DP<sub>2</sub>) that binds DP<sub>2</sub> (K<sub>i</sub> = 50 nM for the mouse receptor expressed in HEK293 cell membranes) and induces activation of eosinophils (EC<sub>50</sub> = 8 nM).<sup>2,3</sup> It also stimulates the recruitment of steroid receptor coactivator-1 (SRC-1) to peroxisome proliferator-activated receptor  $\gamma$  (PPAR $\gamma$ ) and induces PPAR $\gamma$ -mediated transcription in a reporter assay when used at a concentration of 5  $\mu$ M.<sup>1</sup> 15-deoxy- $\Delta^{12,14}$ -PGD<sub>2</sub> is cytotoxic to L1210 murine leukemia cells (IC<sub>50</sub> = 0.3  $\mu$ g/ml).<sup>4</sup> It inhibits ADP-induced platelet aggregation (IC<sub>50</sub> = 320 ng/ml) less potently than PGD<sub>2</sub>.<sup>5</sup>

### References

1. Söderström, M., Wigren, J., Surapureddi, S., *et al.* Novel prostaglandin D<sub>2</sub>-derived activators of peroxisome proliferator-activated receptor- $\gamma$  are formed in macrophage cell cultures. *Biochim. Biophys. Acta* **1631**(1), 35-41 (2003).
2. Hata, A.N., Zent, R., Breyer, M.D., *et al.* Expression and molecular pharmacology of the mouse CRTH2 receptor. *J. Pharmacol. Exp. Ther.* **306**(2), 463-470 (2003).
3. Monneret, G., Li, H., Vasilescu, J., *et al.* 15-Deoxy- $\Delta^{12,14}$ -prostaglandins D<sub>2</sub> and J<sub>2</sub> are potent activators of human eosinophils. *J. Immunol.* **168**(7), 3563-3569 (2002).
4. Forman, B.M., Tontonoz, P., Chen, J., *et al.* 15-Deoxy- $\Delta^{12,14}$ -prostaglandin J<sub>2</sub> is a ligand for the adipocyte determination factor PPAR $\gamma$ . *Cell* **83**(5), 803-812 (1995).
5. 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**(6), 790-799 (1983).

#### 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.

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