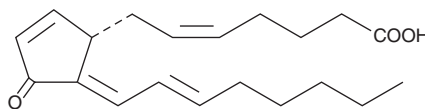


# PRODUCT INFORMATION



## 15-deoxy- $\Delta^{12,14}$ -Prostaglandin J<sub>2</sub> Item No. 18570

**CAS Registry No.:** 87893-55-8  
**Formal Name:** 11-oxo-prosta-5Z,9,12E,14E-tetraen-1-oic acid  
**Synonym:** 15-deoxy- $\Delta^{12,14}$ -PGJ<sub>2</sub>  
**MF:** C<sub>20</sub>H<sub>28</sub>O<sub>3</sub>  
**FW:** 316.4  
**Purity:**  $\geq 95\%$   
**UV/Vis.:**  $\lambda_{\max}$ : 229, 306 nm  
**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 J<sub>2</sub> (15-deoxy- $\Delta^{12,14}$ -PGJ<sub>2</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- $\Delta^{12,14}$ -PGJ<sub>2</sub> in these solvents is approximately 75, 20, and 100 mg/ml, respectively.

15-deoxy- $\Delta^{12,14}$ -PGJ<sub>2</sub> is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of 15-deoxy- $\Delta^{12,14}$ -PGJ<sub>2</sub> should be diluted with the aqueous buffer of choice. The solubility of 15-deoxy- $\Delta^{12,14}$ -PGJ<sub>2</sub> in PBS (pH 7.2) is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

15-deoxy- $\Delta^{12,14}$ -PGJ<sub>2</sub> is formed from PGD<sub>2</sub> by the elimination of two molecules of water. It binds selectively to PPAR $\gamma$  with an EC<sub>50</sub> value of 2  $\mu$ M in a murine chimera system.<sup>1,2</sup> 15-deoxy- $\Delta^{12,14}$ -PGJ<sub>2</sub> is more potent than PGD<sub>2</sub>,  $\Delta^{12}$ -PGJ<sub>2</sub>, and PGJ<sub>2</sub> in stimulating lipogenesis in C3H10T1/2 cells. The EC<sub>50</sub> for induction of adipocyte differentiation in cultured fibroblasts is 7  $\mu$ M.<sup>1</sup>

### References

1. Kliewer, S.A., Lenhard, J.M., Willson, T.M., *et al.* A prostaglandin J<sub>2</sub> metabolite binds peroxisome proliferator-activated receptor  $\gamma$  and promotes adipocyte differentiation. *Cell* **83**(5), 813-819 (1995).
2. 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).

#### 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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