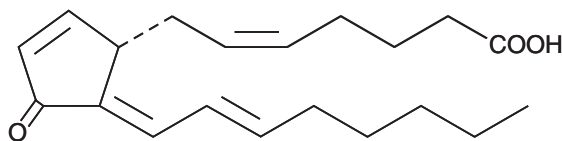


PRODUCT INFORMATION



15-deoxy- $\Delta^{12,14}$ -Prostaglandin J₂ Item No. 18570.1

CAS Registry No.: 87893-55-8
Formal Name: 11-oxo-prosta-5Z,9,12E,14E-tetraen-1-oic acid
MF: C₂₀H₂₈O₃
FW: 316.4
Purity: \geq 95% (A mixture of isomers; the major component is the *trans,trans*- $\Delta^{12,14}$ isomer)
UV/Vis.: λ_{max} : 306 nm
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.

Laboratory Procedures

15-deoxy- $\Delta^{12,14}$ -PGJ₂ is also available as a solution in methyl acetate containing \geq 95% of the *trans,trans*- $\Delta^{12,14}$ isomer (Catalog No. 18570).

15-deoxy- $\Delta^{12,14}$ -PGJ₂ 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, or dimethyl formamide purged with an inert gas can be used. The solubility of 15-deoxy- $\Delta^{12,14}$ -PGJ₂ in these solvents is approximately 20 mg/ml.

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 aqueous solution of 15-deoxy- $\Delta^{12,14}$ -PGJ₂ is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of 15-deoxy- $\Delta^{12,14}$ -PGJ₂ in PBS (pH 7.2) is approximately 2.7 mg/ml. Avoid adding 15-deoxy- $\Delta^{12,14}$ -PGJ₂ to basic solutions (pH > 7.4), since base treatment may polymerize the 15-deoxy- $\Delta^{12,14}$ -PGJ₂. Store aqueous solutions of 15-deoxy- $\Delta^{12,14}$ -PGJ₂ on ice and use within 12 hours of preparation. Although the aqueous solutions of 15-deoxy- $\Delta^{12,14}$ -PGJ₂ may be stable for more than 12 hours, we strongly recommend using a fresh preparation each day.

Description

This formulation of 15-deoxy- $\Delta^{12,14}$ -prostaglandin J₂ (15-deoxy- $\Delta^{12,14}$ -PGJ₂) contains the *trans,trans*- $\Delta^{12,14}$ isomer as the major component as well as other double bond isomers which have similar PPAR γ ligand activity.¹ 15-deoxy- $\Delta^{12,14}$ -PGJ₂ is formed from PGD₂ by the elimination of two molecules of water. It binds selectively to PPAR γ with an EC₅₀ of 2 μ M in a murine chimera system.^{2,3} 15-deoxy- $\Delta^{12,14}$ -PGJ₂ is more potent than PGD₂, Δ^{12} -PGJ₂, and PGJ₂ in stimulating lipogenesis in C3H10T1/2 cells. The EC₅₀ for induction of adipocyte differentiation in cultured fibroblasts is 7 μ M.²

References

1. Maxey, K.M., Hessler, E., MacDonald, J., *et al.* *Prostaglandins and Other Lipid Mediators* **62**, 15-21 (2000).
2. Kliewer, S.A., Lenhard, J.M., Willson, T.M., *et al.* *Cell* **83**, 813-819 (1995).
3. Forman, B.M., Tontonoz, P., Chen, J., *et al.* *Cell* **83**, 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.

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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