

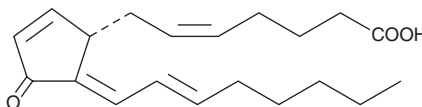
Product Information



15-deoxy- $\Delta^{12,14}$ -Prostaglandin J₂ Lipid Maps MS Standard

Catalog No. 10007235

CAS Registry No.: 87893-55-8
Formal Name: 11-oxo-prosta-5Z,9,12E,14E-tetraen-1-oic acid
Synonym: 15-deoxy- $\Delta^{12,14}$ -PGJ₂
MF: C₂₀H₂₈O₃
FW: 316.4
Purity: ≥97%
Stability: ≥1 year at -20°C
Supplied as: A solution in methyl acetate



Laboratory Procedures

For long term storage, we suggest that 15-deoxy- $\Delta^{12,14}$ -prostaglandin J₂ (15-deoxy- $\Delta^{12,14}$ -PGJ₂) be stored as supplied at -20°C. It should be stable for at least one year.

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.

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 value of 2 μ M in a murine chimera system.^{1,2} 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 value for induction of adipocyte differentiation in cultured fibroblasts is 7 μ M.¹

References

1. Kliewer, S.A., Lenhard, J.M., Willson, T.M., *et al.* A prostaglandin J₂ metabolite binds peroxisome proliferator-activated receptor γ promotes adipocyte differentiation. *Cell* **83**, 813-819 (1995).
2. Forman, B.M., Tontonoz, P., Chen, J., *et al.* 15-Deoxy- $\Delta^{12,14}$ -prostaglandin J₂ is a ligand for the adipocyte determination factor PPAR γ . *Cell* **83**, 803-812 (1995).

Related Products

T0070907 - Cat. No. 10026 • 15-deoxy- $\Delta^{12,14}$ -Prostaglandin J₂-biotinamide - Cat. No. 10141 • Prostaglandin D₂ - Cat. No. 12010 • 15-deoxy- $\Delta^{12,14}$ -Prostaglandin D₂ - Cat. No. 12700 • Prostaglandin J₂ - Cat. No. 18500 • 15-deoxy- $\Delta^{12,14}$ -Prostaglandin J₂ - Cat. No. 18570 • 15-deoxy- $\Delta^{12,14}$ -Prostaglandin J₂ - Cat. No. 18570.1 • CAY10410 - Cat. No. 18590 • MCC-555 - Cat. No. 70735 • GW-9662 - Cat. No. 70785 • PPAR γ -PAK - Cat. No. 71000 • Ciglitazone - Cat. No. 71730 • Rosiglitazone - Cat. No. 71740 • Troglitazone - Cat. No. 71750 • Rosiglitazone (potassium salt) - Cat. No. 71742 • 15-deoxy- $\Delta^{12,14}$ -Prostaglandin J₂-d₄ - Cat. No. 318570 • 15-deoxy- $\Delta^{12,14}$ -Prostaglandin J₂ Quant-PAK - Cat. No. 10006850

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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Cayman Chemical

Mailing address

1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone

(800) 364-9897
(734) 971-3335

Fax

(734) 971-3640

E-Mail

custserv@caymanchem.com

Web

www.caymanchem.com