

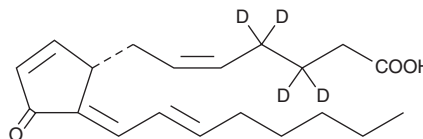
PRODUCT INFORMATION



15-deoxy- $\Delta^{12,14}$ -Prostaglandin J₂-d₄

Item No. 318570

CAS Registry No.:	1542166-82-4
Formal Name:	11-oxo-prosta-5Z,9,12E,14E-tetraen-1- oic-3,3,4,4-d ₄ acid
Synonym:	15-deoxy- $\Delta^{12,14}$ -PGJ ₂ -d ₄
MF:	C ₂₀ H ₂₄ D ₄ O ₃
FW:	320.5
Chemical Purity:	≥98% (15-deoxy- $\Delta^{12,14}$ -Prostaglandin J ₂)
Deuterium Incorporation:	≥99% deuterated forms (d ₁ -d ₄); ≤1% d ₀
UV/Vis.:	λ _{max} : 306 nm
Supplied as:	A solution in methyl acetate
Storage:	-20°C
Stability:	≥2 years



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

Laboratory Procedures

15-deoxy- $\Delta^{12,14}$ -Prostaglandin J₂-d₄ (15-deoxy- $\Delta^{12,14}$ -PGJ₂-d₄) is intended for use as an internal standard for the quantification of 15-deoxy- $\Delta^{12,14}$ -PGJ₂ 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- $\Delta^{12,14}$ -PGJ₂-d₄ 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- $\Delta^{12,14}$ -PGJ₂-d₄ in these solvents is approximately 75, 50, and 100 mg/ml, respectively.

Description

15-deoxy- $\Delta^{12,14}$ -PGJ₂ is a metabolite of PGJ₂. 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.^{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 for induction of adipocyte differentiation in cultured fibroblasts is 7 μ M.¹

References

1. 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**(5), 803-812 (1995).
2. Kliewer, S.A., Lenhard, J.M., Willson, T.M., *et al.* A prostaglandin J₂ metabolite binds peroxisome proliferator-activated receptor γ and promotes adipocyte differentiation. *Cell* **83**(5), 813-819 (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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM