

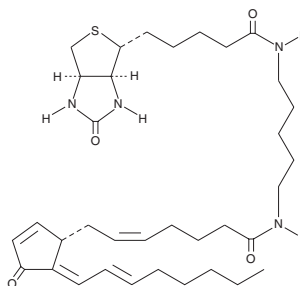
PRODUCT INFORMATION



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

Item No. 10141

Formal Name: N-11-oxo-prosta-5Z,9,12E,14E-tetraen-1-oyl-N'-biotinoyl-1,5-diaminopentane
Synonym: 15-deoxy- $\Delta^{12,14}$ -PGJ₂-biotin
MF: C₃₅H₅₄N₄O₄S
FW: 626.9
Purity: ≥98%
Supplied as: A solution in ethanol
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-biotin (15-deoxy- $\Delta^{12,14}$ -PGJ₂-biotin) is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of 15-deoxy- $\Delta^{12,14}$ -PGJ₂-biotin in these solvents is approximately 20 mg/ml.

15-deoxy- $\Delta^{12,14}$ -PGJ₂-biotin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of 15-deoxy- $\Delta^{12,14}$ -PGJ₂-biotin should be diluted with the aqueous buffer of choice. The solubility of 15-deoxy- $\Delta^{12,14}$ -PGJ₂-biotin in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

15-deoxy- $\Delta^{12,14}$ -PGJ₂ (Item No. 18570) is one of the cyclopentenone PGs, which have documented metabolic (peroxisome proliferator-activated receptor γ -activating), antimetabolic, and antiproliferative effects.¹⁻³ The activity of the compounds in this class, which includes PGs in both the A- and J-series, may result from changes in gene expression and the interaction with non-classical (*i.e.*, non-G protein-coupled receptor) pathways. 15-deoxy- $\Delta^{12,14}$ -PGJ₂-biotin is an affinity probe which allows 15-deoxy- $\Delta^{12,14}$ -PGJ₂ to be detected through an interaction with the biotin ligand. 15-deoxy- $\Delta^{12,14}$ -PGJ₂-biotin was designed to allow 15-deoxy- $\Delta^{12,14}$ -PGJ₂ to be detected in complexes with nuclear receptors and/or nucleic acid or protein binding partners. It is thus a tool to be used in the general elucidation of the mechanism of action of the cyclopentenone PGs.

References

1. Krakoff, L.R., Vlachakis, N., Mendlowitz, M., *et al.* Differential effect of prostaglandin A₁ in hypertensive patients with low, normal, and high renin. *Clin. Sci. Mol. Med.* **2**, 311s-313s (1975).
2. Kikuchi, Y., Kita, T., Hirata, J., *et al.* Preclinical studies of antitumor prostaglandins by using human ovarian cancer cells. *Cancer. Metast. Rev.* **13(3-4)**, 309-315 (1994).
3. Mueller, E., Drori, S., Aiyer, A., *et al.* Genetic analysis of adipogenesis through peroxisome proliferator-activated receptor γ isoforms. *J. Biol. Chem.* **277(44)**, 41925-41930 (2002).

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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