

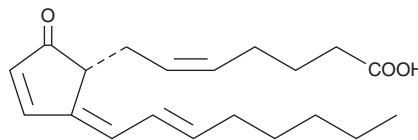
PRODUCT INFORMATION



15-deoxy- $\Delta^{12,14}$ -Prostaglandin A₂

Item No. 10265

CAS Registry No: 112839-31-3
Formal Name: 9-oxo-prosta-5Z,10,12Z,14E-tetraen-1-oic acid
Synonym: 15-deoxy- $\Delta^{12,14}$ -PGA₂
MF: C₂₀H₂₈O₃
FW: 316.4
Purity: ≥98% (a mixture of isomers)
Stability: ≥1 year at -20°C
Supplied as: A solution in methyl acetate
UV/Vis: λ_{max}: 324 nm



Laboratory Procedures

15-deoxy- $\Delta^{12,14}$ -Prostaglandin A₂ (15-deoxy- $\Delta^{12,14}$ -PGA₂) is a synthetic analog of the PPAR γ -ligand 15-deoxy- $\Delta^{12,14}$ -PGJ₂.¹ For long term storage, we suggest that 15-deoxy- $\Delta^{12,14}$ -PGA₂ be stored as supplied at -20°C. It should be stable for at least one year.

15-deoxy- $\Delta^{12,14}$ -PGA₂ 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- $\Delta^{12,14}$ -PGA₂ in these solvents is approximately 100, 50, and 75 mg/ml, respectively. 15-deoxy- $\Delta^{12,14}$ -PGA₂ is stable for at least six months in these solvents if stored at -20°C.

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- $\Delta^{12,14}$ -PGA₂ 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- $\Delta^{12,14}$ -PGA₂ in PBS (pH 7.2) is approximately 2.4 mg/ml. Avoid adding 15-deoxy- $\Delta^{12,14}$ -PGA₂ to basic solutions (pH > 7.4), since 15-deoxy- $\Delta^{12,14}$ -PGA₂ is unstable under basic conditions. Although the aqueous solutions of 15-deoxy- $\Delta^{12,14}$ -PGA₂ may be stable for more than 12 hours, we strongly recommend using a fresh preparation each day.

Description

15-deoxy- $\Delta^{12,14}$ -PGA₂ is a synthetic analog of PGA₂. It shares common structural features with 15-deoxy- $\Delta^{12,14}$ -PGJ₂, which is a ligand for PPAR γ .^{1,2} Antimitotic and antitumor activity have been reported for a similar analog, but there are no published reports on the biological activity of 15-deoxy- $\Delta^{12,14}$ -PGA₂ at this time.³

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**, 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**, 813-819 (1995).
3. Kato, T., Fukushima, M., Kurozumi, S., *et al.* Antitumor activity of Δ^7 -prostaglandin A₁ and Δ^{12} -prostaglandin J₂ *in vitro* and *in vivo*. *Cancer Res.* **46**, 3538-3542 (1986).

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.

Copyright Cayman Chemical Company, 08/13/2015

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