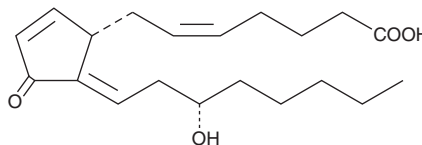


PRODUCT INFORMATION



Δ^{12} -Prostaglandin J₂ Item No. 18550

CAS Registry No.: 87893-54-7
Formal Name: 15S-hydroxy-11-oxo-prosta-5Z,9,12E-trien-1-oic acid
Synonym: Δ^{12} -PGJ₂
MF: C₂₀H₃₀O₄
FW: 334.5
Purity: ≥95%
UV/Vis.: λ_{max}: 244 nm
Supplied as: A solution in methyl acetate
Storage: -80°C
Stability: ≥2 years



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

Laboratory Procedures

Δ^{12} -Prostaglandin J₂ (Δ^{12} -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, and dimethyl formamide purged with an inert gas can be used. The solubility of Δ^{12} -PGJ₂ in these solvents is approximately 75, 50, and 100 mg/ml, respectively.

Δ^{12} -PGJ₂ is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of Δ^{12} -PGJ₂ should be diluted with the aqueous buffer of choice. The solubility of Δ^{12} -PGJ₂ in PBS (pH 7.2) is approximately 2.7 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Δ^{12} -PGJ₂ is a decomposition product of PGD₂ in aqueous media in the presence of albumin.¹ It has antitumor and antiviral activity, inhibiting growth of cultured L1210 cells at with an IC₅₀ value of 0.7 μg/ml.² Δ^{12} -PGJ₂ is present in normal human urine with a 24 hour excretion rate of 50-150 ng.³ It is also a moderately potent PPAR_γ ligand.⁴

References

1. Fitzpatrick, F.A. and Wynalda, M.A. Albumin-catalyzed metabolism of prostaglandin D₂. Identification of products formed *in vitro*. *J. Biol. Chem.* **258(19)**, 11713-11718 (1983).
2. 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(7)**, 3538-3542 (1986).
3. Hirata, Y., Hayashi, H., Ito, S., *et al.* Occurrence of 9-deoxy- Δ^9, Δ^{12} -13,14-dihydroprostaglandin D₂ in human urine. *J. Biol. Chem.* **263(32)**, 16619-16625 (1988).
4. 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).

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, 10/09/2023

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