

PRODUCT INFORMATION



Cyclopentenone Prostaglandin HPLC Mixture

Item No. 10000

Synonym: Cyclopentenone PG HPLC Mixture
Purity: ≥98% for each compound
Stability: ≥6 months at -80°C
Supplied as: A solution in methyl acetate (100 µg of each compound)

Laboratory Procedures

The Cyclopentenone Prostaglandin HPLC Mixture is supplied as a solution in methyl acetate. We suggest that it be stored as supplied at -80°C. It will be stable for at least six months.

Description

PGE₂ (Item No. 14010) and PGD₂ (Item No. 12010) are both chemically unstable. In the absence of any enzymatic influence, both undergo dehydration to form the highly UV active cyclopentenone compounds PGA₂ (Item No. 10210) and PGJ₂ (Item No. 18500), respectively.^{1,2} These compounds absorb in the ultraviolet with maxima at 216-220 nm. The cyclopentenone PGs have been noted to have antimetabolic, antiviral, and antitumor activity in a number of systems.^{3,4}

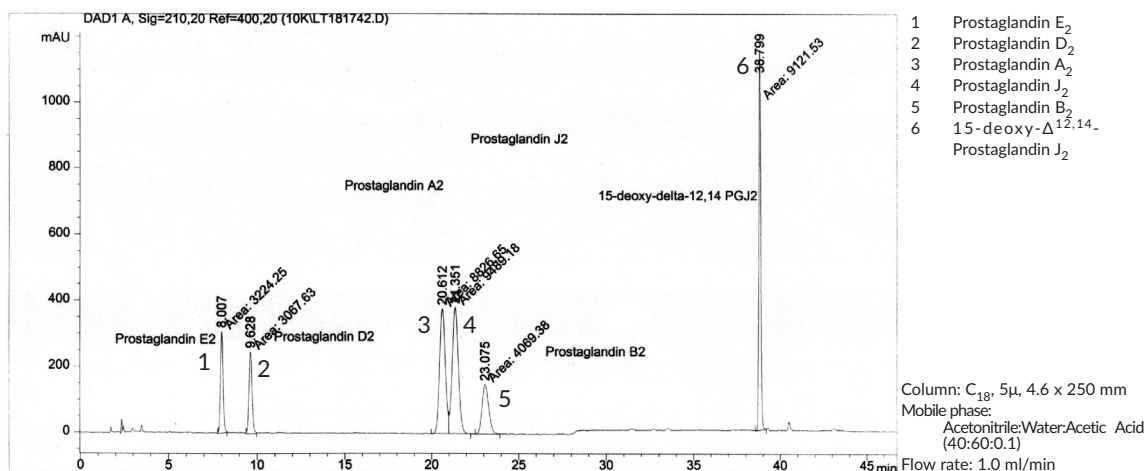
PGA₂ and PGJ₂ can also undergo further elimination and double bond rearrangements to give PGB₂ (Item No. 11210) and 15-deoxy-Δ^{12,14}-PGJ₂ (Item No. 18570), respectively. 15-deoxy-Δ^{12,14}-PGJ₂ is a relatively potent ligand for the PPARγ nuclear receptor.⁵ PGB₂ does not appear to have significant intrinsic biological activity; however, it is frequently used as a reliable internal standard for analysis of eicosanoids by HPLC.

References

References

1. Granström, E. and Samuelsson, B. *Adv. Prostaglandin Thromboxane Res.* **5**, 1-13 (1978).
2. Fitzpatrick, F.A. and Wynalda, M.A. *J. Biol. Chem.* **258**, 11713-11718 (1983).
3. Fukushima, M., Kato, T., Narumiya, S., et al. *Adv. Prostaglandin Thromboxane Leukotriene Res.* **19**, 415-418 (1989).
4. Fukushima, M. *Eicosanoids* **3**, 189-199 (1990).
5. Kliewer, S.A., Lenhard, J.M., Willson, T.M., et al. *Cell* **83**, 813-819 (1995).

Image



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, 07/27/2015

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