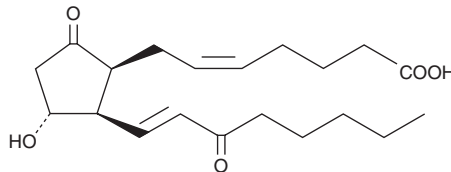


PRODUCT INFORMATION



8-iso-15-keto Prostaglandin E₂ Item No. 14390

CAS Registry No.: 914804-63-0
Formal Name: (8β)-11α-hydroxy-9,15-dioxo-prosta-5Z,13E-1-oic acid
Synonyms: 8-*epi*-15-keto PGE₂, 8-*iso*-15-keto PGE₂
MF: C₂₀H₃₀O₅
FW: 350.5
Purity: ≥98%
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

8-*iso*-15-keto Prostaglandin E₂ (8-*iso*-15-keto PGE₂) 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 (DMF) purged with an inert gas can be used. The solubility of 8-*iso*-15-keto PGE₂ in ethanol and DMF is approximately 33 mg/ml and approximately 20 mg/ml in DMSO.

8-*iso*-15-keto PGE₂ is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of 8-*iso*-15-keto PGE₂ should be diluted with the aqueous buffer of choice. The solubility of 8-*iso*-15-keto PGE₂ in PBS (pH 7.2) is approximately 1.4 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

8-*iso*-15-keto PGE₂ is an isoprostane, one member of a large family of biomarkers produced by the free radical peroxidative degradation of membrane lipids.¹ 8-*iso*-15-keto PGE₂ is the theoretical first metabolite of 8-*iso* PGE₂ via the 15-hydroxy PGDH pathway. While a number of potent biological activities have been attributed to 8-*iso* PGE₂, there are no published reports at this time regarding its metabolism.²

References

1. Morrow, J.D., Hill, K.E., Burk, R.F., *et al.* A series of prostaglandin F₂-like compounds are produced *in vivo* in humans by a non-cyclooxygenase, free radical-catalyzed mechanism. *Proc. Natl. Acad. Sci. USA* **87(23)**, 9383-9387 (1990).
2. Longmire, A.W., Roberts, L.J., and Morrow, J.D. Actions of the E₂-isoprostane, 8-*iso*-PGE₂, on the platelet thromboxane/endoperoxide receptor in humans and rats: Additional evidence for the existence of a unique isoprostane receptor. *Prostaglandins* **48(4)**, 247-256 (1994).

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, 03/13/2024

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