

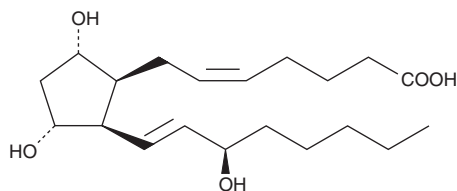
Product Information



8-iso-15(R) Prostaglandin F_{2α}

Catalog No. 16395

CAS Registry No.: 214748-65-9
Formal Name: 9α,11α,15R-trihydroxy-(8β)-prosta-5Z,13E-dien-1-oic acid
Synonym: 8-iso-15-epi Prostaglandin F_{2α}
MF: C₂₀H₃₄O₅
FW: 354.5
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A solution in methyl acetate



Laboratory Procedures

8-iso-15(R) Prostaglandin F_{2α} (8-iso-15(R) PGF_{2α}) is an isomer of PGF_{2α}. For long term storage, we suggest that 8-iso-15(R) PGF_{2α} be stored as supplied at -20°C. It will be stable for at least one year.

8-iso-15(R) PGF_{2α} is supplied as a solution in methyl acetate. To change the solvent, 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 8-iso-15(R) PGF_{2α} in these solvents is approximately 100 mg/ml. 8-iso-15(R) PGF_{2α} will be stable in these solvents for at least one year 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 solution of 8-iso-15(R) PGF_{2α} is needed, evaporate the methyl acetate under a gentle stream of nitrogen and dissolve the neat oil in the buffer of choice. The solubility of 8-iso-15(R) PGF_{2α} in PBS, pH 7.2, is approximately 10 mg/ml. The solubility of 8-iso-15(R) PGF_{2α} in 10 mM aqueous Na₂CO₃ is approximately 6 mg/ml. Store aqueous solutions of 8-iso-15(R) PGF_{2α} on ice and use within twelve hours.

8-iso-15(R) PGF_{2α} is one member of a large family of prostaglandin-like eicosanoids formed by the free radical peroxidation of arachidonic acid in membrane phospholipids.¹ It is the C-15 epimer of 8-iso PGF_{2α}, the only isoprostane isomer which has been studied in depth in a variety of biological systems.²

References

- Morrow, J.D., Harris, T.M., Roberts, L.J., II. Noncyclooxygenase oxidative formation of a series of novel prostaglandins: Analytical ramifications for measurement of eicosanoids. *Anal. Biochem.* **184**, 1-10 (1990).
- Morrow, J.D., Minton, T.A., and Roberts, L.J., II The F₂-isoprostane, 8-epi-prostaglandin F_{2α}, a potent agonist of the vascular thromboxane/endoperoxide receptor, is a platelet thromboxane/endoperoxide receptor antagonist. *Prostaglandins* **44**, 155-163 (1992).

Related Products

Prostaglandin F_{2α} - Cat. No. 16010 • 8-iso Prostaglandin F_{2α} - Cat. No. 16350 • 15(R)-Prostaglandin F_{2α} - Cat. No. 16740 • Arachidonic Acid - Cat. No. 90010

WARNING: THIS PRODUCT IS NOT FOR HUMAN OR ANIMAL DISEASE DIAGNOSIS OR THERAPEUTIC DRUG USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent under separate cover to the MSDS supervisor at your institution.

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