8-iso Prostaglandin F₁α

Item No. 15350

CAS Registry No.: 26771-96-0
Formal Name: 9α,11α,15S-trihydroxy-(8β)-prost-13E-en-1-oic acid
Synonym: 8-epi Prostaglandin F₁α
MF: C₂₀H₃₆O₅
FW: 356.5
Purity: ≥99%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid

Laboratory Procedures

8-iso Prostaglandin F₁α (8-iso PGF₁α) is an isoprostane that was first identified in human semen. For long term storage, we suggest that 8-iso PGF₁α be stored as supplied at -20°C. It will be stable for at least two years.

8-iso PGF₁α is supplied as a crystalline solid. A stock solution may be made by dissolving the 8-iso PGF₁α in an organic solvent. 8-iso PGF₁α is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 8-iso PGF₁α in these solvents is approximately 50 mg/ml. 8-iso PGF₁α will be 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. Organic solvent-free aqueous solutions of 8-iso PGF₁α can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of 8-iso PGF₁α in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

8-iso PGF₁α is a member of the isoprostane family, which are eicosanoids of non-cyclooxygenase origin. 8-iso PGF₁α is found in human semen along with its 19-hydroxy congener at 5-10 µg/ml of seminal plasma.

References

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