

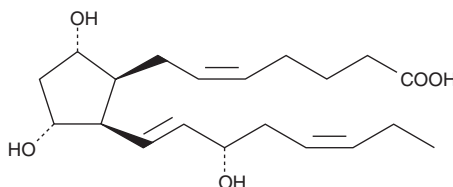
Product Information



8-iso Prostaglandin F_{3α}

Catalog No. 16992

CAS Registry No.: 7045-31-0
Formal Name: 9α,11α,15S-trihydroxy-(8β)-prosta-5Z,13E,17Z-trien-1-oic acid
Synonym: 8-*epi* PGF_{3α}, 8-*iso* PGF_{3α}
MF: C₂₀H₃₂O₅
FW: 352.5
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A solution in methyl acetate



Laboratory Procedures

8-*iso* Prostaglandin F_{3α} (8-*iso* PGF_{3α}) is an isoprostane produced from the free-radical autoxidation of eicosapentaenoic acid. For long term storage, we suggest that 8-*iso* PGF_{3α} be stored as supplied at -20°C. It should be stable for at least one year.

8-*iso* PGF_{3α} 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 DMSO, dimethyl formamide, or ethanol purged with an inert gas can be used. The solubility of 8-*iso* PGF_{3α} in these solvents is approximately 100 mg/ml. 8-*iso* PGF_{3α} is stable for at least 6 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 solutions of 8-*iso* PGF_{3α} can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of 8-*iso* PGF_{3α} in PBS (pH 7.2) is approximately 10 mg/ml. Store aqueous solutions of 8-*iso* PGF_{3α} on ice and use within 12 hours of preparation. Although the aqueous solutions of 8-*iso* PGF_{3α} may be stable for more than 12 hours, we strongly recommend using a fresh preparation each day.

Although 8-*iso* PGF_{3α} is structurally similar to 8-*iso* PGF_{2α}, it does not exhibit the same biological activity. Unlike 8-*iso* PGF_{2α}, 8-*iso* PGF_{3α} fails to evoke platelet shape change or platelet intracellular calcium movement.¹

Reference

1. Praticò, D., Smith, E.M., Violi, F., *et al.* Local amplification of platelet function by 8-*epi* prostaglandin F_{2α} is not mediated by thromboxane receptor isoforms. *J. Biol. Chem.* **271**, 14916-14924 (1996).

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC 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 via email to your institution.

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