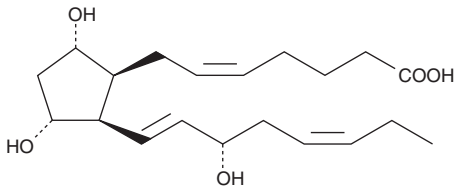
PRODUCT INFORMATION

8-*iso* Prostaglandin $F_{3\alpha}$

Item No. 16992

CAS Registry No.: 7045-31-0
Formal Name: (8β)-9α,11α,15S-trihydroxy-prosta-5Z,13E,17Z-trien-1-oic acid
Synonyms: 8-*epi* $PGF_{3\alpha}$, 8-*iso* $PGF_{3\alpha}$
MF: $C_{20}H_{32}O_5$
FW: 352.5
Purity: ≥98%
Supplied as: A solution in methyl acetate
Storage: -20°C
Stability: ≥1 year



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

8-*iso* Prostaglandin $F_{3\alpha}$ (8-*iso* $PGF_{3\alpha}$) 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 purged with an inert gas can be used. The solubility of 8-*iso* $PGF_{3\alpha}$ in these solvents is approximately 100 mg/ml. 8-*iso* $PGF_{3\alpha}$ is soluble in 10 mM Na_2CO_3 at a concentration of approximately 6.5 mg/ml.

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* $PGF_{3\alpha}$ is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of 8-*iso* $PGF_{3\alpha}$ in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

8-*iso* $PGF_{3\alpha}$ is an isoprostane produced from the free-radical peroxidation of EPA. Little is known about the biological activity of 8-*iso* $PGF_{3\alpha}$. There is one report that it is inactive in a TP receptor mediated assay of human platelet shape change, where 8-*iso* $PGF_{2\alpha}$ has an ED_{50} value of 1 µM.[1]

Reference

1. Praticò, D., Smith, E.M., Violi, F., *et al.* Local amplification of platelet function by 8-epi prostaglandin $F_{2\alpha}$ is not mediated by thromboxane receptor isoforms. *J. Biol. Chem.* **271(25)**, 14916-14924 (1996).

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