PRODUCT INFORMATION

Prostaglandin F$_{3\alpha}$
Item No. 16990

CAS Registry No.: 745-64-2
Formal Name: 9α,11α,15S-trihydroxy-prosta-5Z,13E,17Z-trien-1-oic acid
Synonym: 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

Prostaglandin F$_{3\alpha}$ (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 PGF$_{3\alpha}$ in these solvents is approximately 100 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 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 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

PGF$_{3\alpha}$ is a COX product of EPA. The biosynthesis of PGF$_{3\alpha}$ from EPA was demonstrated in vitro in human and rabbit ocular tissues.$^1$ It has only 25% affinity at the ovine luteal FP receptor compared to PGF$_{2\alpha}$$^2$

References