PRODUCT INFORMATION

13,14-dihydro-15-keto Prostaglandin F$_{2\alpha}$

Item No. 16670

CAS Registry No.: 27376-76-7
Formal Name: 9α,11α-dihydroxy-15-oxo-prost-5-en-1-oic acid
Synonyms: 13,14-dihydro-15-keto PGF$_{2\alpha}$, PGFM
MF: C$_{20}$H$_{34}$O$_{5}$
FW: 354.5
Purity: ≥95%
Supplied as: A solution in methyl acetate
Storage: -20°C
Stability: ≥2 years

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

Laboratory Procedures

13,14-dihydro-15-keto Prostaglandin F$_{2\alpha}$ (13,14-dihydro-15-keto PGF$_{2\alpha}$) 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 DMSO, dimethyl formamide, or ethanol purged with an inert gas can be used. The solubility of 13,14-dihydro-15-keto PGF$_{2\alpha}$ 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. Organic solvent-free solutions of 13,14-dihydro-15-keto PGF$_{2\alpha}$ can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of 13,14-dihydro-15-keto PGF$_{2\alpha}$ in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

13,14-dihydro-15-keto PGF$_{2\alpha}$ is the first prominent plasma metabolite of PGF$_{2\alpha}$ in the 15-hydroxy PGDH pathway. Measurement of 13,14-dihydro-15-keto PGF$_{2\alpha}$ in plasma can be used as a marker of the in vivo production of PGF$_{2\alpha}$.1-3

References