Product Information

15(R)-15-methyl Prostaglandin F$_{2\alpha}$

Item No. 16730

CAS Registry No: 35864-81-4

Formal Name: 9α,11α,15R-trihydroxy-15-methylprosta-5Z,13E-dien-1-oi acid

MF: C$_{21}$H$_{36}$O$_5$

FW: 368.5

Purity: ≥95%

Stability: ≥1 year at -20°C

Supplied as: A solution in methyl acetate

Laboratory Procedures

15(R)-15-methyl Prostaglandin F$_{2\alpha}$ (15(R)-15-methyl PGF$_{2\alpha}$) is a metabolically stable analog of PGF$_{2\alpha}$. For long term storage, we suggest that 15(R)-15-methyl PGF$_{2\alpha}$ be stored as supplied at -20°C. It will be stable for at least one year.

15(R)-15-methyl 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 ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of 15(R)-15-methyl PGF$_{2\alpha}$ in these solvents is approximately 100 mg/ml. 15(R)-15-methyl PGF$_{2\alpha}$ is 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. If an organic solvent-free solution of 15(R)-15-methyl PGF$_{2\alpha}$ is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of 15(R)-15-methyl 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.

15(R)-15-methyl PGF$_{2\alpha}$ is an inactive, prodrug PGF agonist designed for activation by gastric acid after oral administration. Acid-catalyzed epimerization of 15(R)-15-methyl PGF$_{2\alpha}$ converts it into the active 15(S)-isomer. The 15(S)-isomer induces luteolysis when injected into rhesus monkeys at a dose of about 12 mg/animal while the 15(R)-isomer does not.

References


Related Products

For a list of related products please visit: www.caymanchem.com/catalog/16730

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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 Safety Data Sheet, which has been sent with your order.

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