Product Information

15-keto Prostaglandin F$_2$α
Item No. 16720

CAS Registry No.: 35850-13-6
Formal Name: 9α,11α-dihydroxy-15-oxo-prosta-5Z,13E-dien-1-oic acid
Synonym: 15-keto PGF$_{2α}$
MF: C$_{20}$H$_{32}$O$_5$
FW: 352.5
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A solution in methyl acetate
UV/Vis: 234 nm

Laboratory Procedures
For long term storage, we suggest that 15-keto prostaglandin F$_2$α (15-keto PGF$_{2α}$) be stored as supplied at -20°C. It should be stable for at least two years.

15-keto PGF$_{2α}$ is supplied as a solution in methyl acetate. To change the solvent, evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, or dimethyl formamide purged with an inert gas can be used. The solubility of 15-keto PGF$_{2α}$ 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 15-keto PGF$_{2α}$ is needed, evaporate the methyl acetate under a gentle stream of nitrogen and dissolve the neat oil in the buffer of choice. The solubility of 15-keto PGF$_{2α}$ in PBS, pH 7.2, is approximately 10 mg/ml. The solubility of 15-keto PGF$_{2α}$ in 10 mM aqueous Na$_2$CO$_3$ is approximately 6 mg/ml. We do not recommend storing the aqueous solution for more than one day.

15-keto PGF$_{2α}$ is the first metabolite of PGF$_{2α}$ in the 15-hydroxy PGDH pathway. It is one of the critical components in the goldfish and Atlantic salmon postovulatory pheromone. 1,2 15-keto PGF$_{2α}$ stimulates the male goldfish and salmon olfactory senses with detection thresholds of 10$^{-12}$ and 10$^{-8}$ M, respectively. 1,2 15-keto PGF$_{2α}$ is 10-fold less active than PGF$_{2α}$ in decreasing rabbit intraocular pressure. 3

References

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/16720

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 to the buyer via fax or email to your institution.

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