

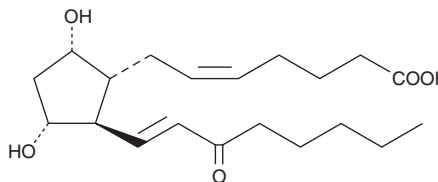
Product Information



15-keto Prostaglandin F_{2α} Lipid Maps MS Standard

Catalog No. 10007227

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: C₂₀H₃₂O₅
FW: 352.5
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A solution in methyl acetate



Laboratory Procedures

For long term storage, we suggest that 15-keto prostaglandin F_{2α} (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 Na₂CO₃ 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

1. Sorensen, P.W., Hara, T.J., Goetz, F.W., *et al.* F prostaglandins function as potent olfactory stimulants that comprise the postovulatory female sex pheromone in goldfish. *Biol. Reprod.* **39**, 1039-1050 (1988).
2. Moore, A. and Waring, C.P. Electrophysiological and endocrinological evidence that F-series prostaglandins function as priming pheromones in mature male Atlantic salmon (*Salmo salar*) PARR. *J. Exp. Biol.* **199**, 2307-2316 (1996).
3. Woodward, D.F., Williams, L.S., Chen, J. Marked differential effects of prostanoid metabolites on rabbit intraocular pressure. *Ophthalmic Res.* **21**, 428-435 (1989).

Related Products

Prostaglandin F_{2α} - Cat. No. 16010 • 15-keto Prostaglandin F_{2α} - Cat. No. 16720 • 15-hydroxy Prostaglandin Dehydrogenase Polyclonal Antibody - Cat. No. 160615 • 15-hydroxy Prostaglandin Dehydrogenase (human recombinant) - Cat. No. 10007950

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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 under separate cover to the MSDS supervisor at your institution.

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