

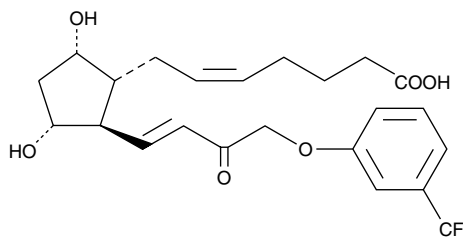
Product Information



15-keto Fluprostenol

Item No. 16785

Formal Name: (\pm)15-oxo-9 α ,11 α -dihydroxy-16,16-(3-(trifluoromethyl)phenoxy)-17,18,19,20-tetranor-prosta-5Z,13E-dien-1-oic acid
MF: C₂₃H₂₇F₃O₆
FW: 456.5
Purity: $\geq 98\%$
Stability: ≥ 1 year at -20°C
Supplied as: A solution in methyl acetate
UV/Vis.: λ_{max} : 225 nm



Laboratory Procedures

For long term storage, we suggest that 15-keto fluprostenol be stored as supplied at -20°C . It should be stable for at least one year.

15-keto Fluprostenol 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-keto fluprostenol in these solvents is approximately 100 mg/ml. 15-keto Fluprostenol 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-keto fluprostenol is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of 15-keto fluprostenol in PBS (pH 7.2) is approximately 20 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Fluprostenol is an F-series prostaglandin analog which has been approved for many years as a luteolytic in veterinary animals.¹ The isopropyl ester of fluprostenol (travoprost) was recently introduced as an ocular hypotensive drug.² Oxidation of the C-15 hydroxyl group of fluprostenol produces 15-keto fluprostenol. 15-keto Fluprostenol is a potential metabolite of fluprostenol when administered to animals. 15-keto Fluprostenol is also one of the common minor impurities found in commercial preparations of the bulk drug compound. Products of β -oxidation account for most of the metabolites of fluprostenol recovered in plasma and urine. However, 15-keto fluprostenol is a minor metabolite, and one which could be enhanced in situations where β -oxidation is reduced.

References

1. Dukes, M., Russell, W., and Walpole, A.L. Potent luteolytic agents related to prostaglandin F_{2 α} . *Nature* **250**, 330-331 (1974).
2. Sorbera, L.A. and Castañer, J. Travoprost. *Drugs of the Future* **25**, 41-45 (2000).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/16785

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 via email to your institution.

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