

PRODUCT INFORMATION



9-keto Fluprostenol isopropyl ester

Item No. 16782

CAS Registry No.: 1219032-18-4
Formal Name: (5Z)-7-[(1R,2R,3R)-3-hydroxy-2-[(1E,3R)-3-hydroxy-4-[3-(trifluoromethyl)phenoxy]-1-buten-1-yl]-5-oxocyclopentyl]-5-heptenoic acid, 1-methylethyl ester

Synonym: Fluprostenol Prostaglandin E₂

MF: C₂₆H₃₃F₃O₆

FW: 498.5

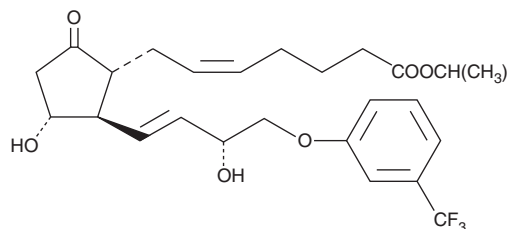
Purity: ≥98%

UV/Vis.: λ_{max}: 222, 277 nm

Supplied as: A solution in ethanol

Storage: -20°C

Stability: ≥2 years



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

Laboratory Procedures

9-keto Fluprostenol isopropyl ester is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of 9-keto Fluprostenol isopropyl ester in these solvents is approximately 20 and 30 mg/ml, respectively.

9-keto Fluprostenol isopropyl ester is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of 9-keto fluprostenol isopropyl ester should be diluted with the aqueous buffer of choice. 9-keto Fluprostenol isopropyl ester has a solubility of 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

9-keto Fluprostenol isopropyl ester is an ester derivative of the FP receptor agonist fluprostenol (Item No. 16768) that is oxidized at carbon 9. It is a potential prodrug to 9-keto fluprostenol (Item No. 16781), which could act as an agonist at EP receptors. It is also a potential metabolite of fluprostenol isopropyl ester (travoprost; Item No. 16769) based on the published metabolism of latanoprost (Item No. 16812) by 15-hydroxyprostaglandin dehydrogenase in the monkey cornea.¹ Certain F-series prostaglandins, such as 6-keto prostaglandin F_{1α} (PGF_{1α}; Item No. 15210), are converted to the corresponding E-series compounds in isolated human platelets.²

References

1. Fujimori, K., Okada, T., and Urade, Y. Expression of NADP⁺-dependent 15-hydroxyprostaglandin dehydrogenase mRNA in monkey ocular tissues and characterization of its recombinant enzyme. *J. Biochem.* **131**(3), 383-389 (2002).
2. Wong, P.Y.K., Lee, W.H., Chao, P.H.W., *et al.* Metabolism of prostacyclin by 9-hydroxyprostaglandin dehydrogenase in human platelets. Formation of a potent inhibitor of platelet aggregation and enzyme purification. *J. Biol. Chem.* **255**(19), 9021-9024 (1980).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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