

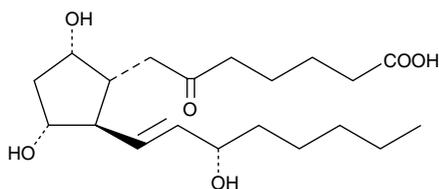
Product Information



6-keto Prostaglandin F_{1α} Quant-PAK Item No. 10006830

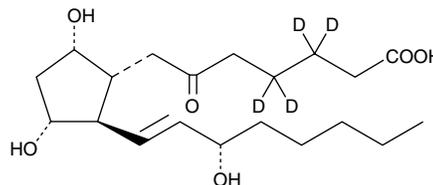
6-keto Prostaglandin F_{1α}

CAS Registry No.: 58962-34-8
Formal Name: 6-oxo-9α,11α,15S-trihydroxy-prost-13-en-1-oic acid
MF: C₂₀H₃₄O₆
FW: 370.5
Purity: ≥99%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



6-keto Prostaglandin F_{1α}-d₄

CAS Registry No.: 82414-64-0
Formal Name: 6-oxo-9α,11α,15S-trihydroxy-prost-13E-en-1-oic-3,3,4,4-d₄ acid
MF: C₂₀H₃₀D₄O₆
FW: 374.5
Chemical Purity: ≥99%
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀
Stability: ≥1 year at -20°C
Supplied as: A solution in methyl acetate



This 6-keto prostaglandin F_{1α} (6-keto PGF_{1α}) Quant-PAK contains 50 µg of 6-keto PGF_{1α}-d₄ and 2-4 mg of 6-keto PGF_{1α} (please see the vial for exact amount and concentration). For long term storage, we suggest that 6-keto PGF_{1α} and 6-keto PGF_{1α}-d₄ be stored as supplied at -20°C. They will be stable for at least one year.

6-keto PGF_{1α} is supplied as a crystalline solid. A stock solution may be made by dissolving the 6-keto PGF_{1α} in an organic solvent purged with an inert gas. 6-keto PGF_{1α} is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 6-keto PGF_{1α} in these solvents is 16.6, 50, and 100 mg/ml, respectively.

6-keto PGF_{1α}-d₄ 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 6-keto PGF_{1α}-d₄ in these solvents is 16, 50, and 100 mg/ml, respectively.

6-keto PGF_{1α}-d₄ contains four deuterium atoms at the 3, 3', 4, and 4' positions. It is intended for use as an internal standard for the quantification of 6-keto PGF_{1α} by GC- or LC-mass spectrometry. For better precision we have provided a precisely weighed unlabeled 6-keto PGF_{1α}, with the precise weight (2-4 mg) indicated on the vial. Using this vial the deuterated standard can be quantified by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

6-keto PGF_{1α} is the inactive, non-enzymatic hydrolysis product of PGI₂.^{1,2} 6-keto PGF_{1α} serves as a useful marker of PGI₂ biosynthesis *in vivo*.³ When [³H]-PGI₂ is injected into healthy human males, 6.6% of the radioactivity is recovered from urine as [³H]-6-keto PGF_{1α}.³

References

1. Pace-Asciak, C.R. Isolation, structure, and biosynthesis of 6-ketoprostaglandin F_{1α} in the rat stomach. *J. Am. Chem. Soc.* 98, 2348-2349 (1976).
2. Johnson, R.A., Morton, D.R., Kinner, J.H., *et al.* The chemical structure of prostaglandin X (prostacyclin). *Prostaglandins* 12, 915-928 (1976).
3. Brash, A.R., Jackson, E.K., Saggese, C.A., *et al.* Metabolic disposition of prostacyclin in humans. *J. Pharmacol. Exp. Ther.* 226, 78-87 (1983).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/10006830

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 via email to your institution.

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Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will **meet our specifications at the time of delivery**.

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Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a **refund** of the purchase price, or at Cayman's option, the **replacement**, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

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