

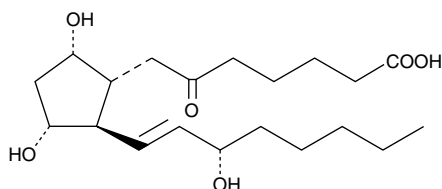
# Product Information



## 6-keto Prostaglandin F<sub>1α</sub> Quant-PAK Item No. 10006830

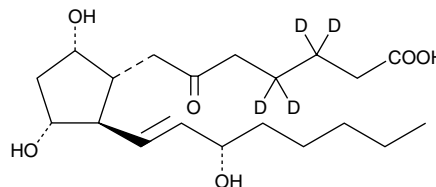
### 6-keto Prostaglandin F<sub>1α</sub>

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



### 6-keto Prostaglandin F<sub>1α</sub>-d<sub>4</sub>

**CAS Registry No.:** 82414-64-0  
**Formal Name:** 6-oxo-9α,11α,15S-trihydroxy-prost-13E-en-1-oic-3,3,4,4-d<sub>4</sub> acid  
**MF:** C<sub>20</sub>H<sub>30</sub>D<sub>4</sub>O<sub>6</sub>  
**FW:** 374.5  
**Chemical Purity:** ≥99%  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>4</sub>); ≤1% d<sub>0</sub>  
**Stability:** ≥1 year at -20°C  
**Supplied as:** A solution in methyl acetate



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

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

6-keto PGF<sub>1α</sub>-d<sub>4</sub> 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<sub>1α</sub>-d<sub>4</sub> in these solvents is 16, 50, and 100 mg/ml, respectively.

6-keto PGF<sub>1α</sub>-d<sub>4</sub> 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<sub>1α</sub> by GC- or LC-mass spectrometry. For better precision we have provided a precisely weighed unlabeled 6-keto PGF<sub>1α</sub>, 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<sub>1α</sub> is the inactive, non-enzymatic hydrolysis product of PGI<sub>2</sub>.<sup>1,2</sup> 6-keto PGF<sub>1α</sub> serves as a useful marker of PGI<sub>2</sub> biosynthesis *in vivo*.<sup>3</sup> When [<sup>3</sup>H]-PGI<sub>2</sub> is injected into healthy human males, 6.6% of the radioactivity is recovered from urine as [<sup>3</sup>H]-6-keto PGF<sub>1α</sub>.<sup>3</sup>

### References

1. Pace-Asciak, C.R. Isolation, structure, and biosynthesis of 6-ketoprostaglandin F<sub>1α</sub> 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](http://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.

### WARRANTY AND LIMITATION OF REMEDY

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.**

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

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.

For further details, please refer to our **Warranty and Limitation of Remedy located on our website and in our catalog.**

Copyright Cayman Chemical Company, 09/06/2013

### Cayman Chemical

**Mailing address**  
1180 E. Ellsworth Road  
Ann Arbor, MI  
48108 USA

**Phone**  
(800) 364-9897  
(734) 971-3335

**Fax**  
(734) 971-3640

**E-Mail**  
custserv@caymanchem.com

**Web**  
[www.caymanchem.com](http://www.caymanchem.com)