

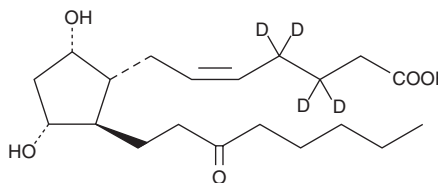
# PRODUCT INFORMATION



## 13,14-dihydro-15-keto Prostaglandin F<sub>2α</sub>-d<sub>4</sub>

Item No. 10007793

**CAS Registry No.:** 42932-59-2  
**Formal Name:** 9α,11α-dihydroxy-15-oxo-prost-5Z-en-1-oic-3,3,4,4-d<sub>4</sub> acid  
**Synonyms:** 13,14-dihydro-15-keto PGF<sub>2α</sub>-d<sub>4</sub>, PGFM-d<sub>4</sub>  
**MF:** C<sub>20</sub>H<sub>30</sub>D<sub>4</sub>O<sub>5</sub>  
**FW:** 358.5  
**Chemical Purity:** ≥98%  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>4</sub>); ≤1% d<sub>0</sub>  
**Supplied as:** A solution in methyl acetate  
**Storage:** -20°C  
**Stability:** ≥2 years



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

### Laboratory Procedures

13,14-dihydro-15-keto Prostaglandin F<sub>2α</sub>-d<sub>4</sub> (13,14-dihydro-15-keto PGF<sub>2α</sub>-d<sub>4</sub>) is intended for use as an internal standard for the quantification of 13,14-dihydro-15-keto PGF<sub>2α</sub> (Item No. 16670) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

13,14-dihydro-15-keto PGF<sub>2α</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 13,14-dihydro-15-keto PGF<sub>2α</sub>-d<sub>4</sub> in these solvents is approximately 50 mg/ml.

### Description

13,14-dihydro-15-keto PGF<sub>2α</sub> is the first prominent plasma metabolite of PGF<sub>2α</sub> in the 15-hydroxy PGDH pathway.<sup>1</sup> Measurement of 13,14-dihydro-15-keto PGF<sub>2α</sub> in plasma can be used as a marker of the *in vivo* production of PGF<sub>2α</sub>.<sup>1-3</sup>

### References

1. Samuelsson, B., Goldyne, M., Granström, E., *et al.* Prostaglandins and thromboxanes. *Annu. Rev. Biochem.* **47**, 997-1029 (1978).
2. Del Vecchio, R.P., Maxey, K.M., and Lewis, G.S. A quantitative solid-phase enzymeimmunoassay for 13,14-dihydro-15-keto-prostaglandin F<sub>2α</sub> in plasma. *Prostaglandins* **43**, 321-330 (1992).
3. Meyer, H.H.D., Eisele, K., and Osaso, J. A biotin-streptavidin amplified enzyme immunoassay for 13,14-dihydro-15-keto-PGF<sub>2α</sub>. *Prostaglandins* **38**, 375-383 (1989).

#### 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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