

# PRODUCT INFORMATION



**8,12-iso-iPF<sub>2α</sub>-VI-d<sub>11</sub>**  
Item No. 10006878

**CAS Registry No.:** 1616977-85-5

**Formal Name:** (12α)-5,9α,11α-trihydroxy-  
prosta-6E,14Z-dien-1-oic-  
16,16,17,17,18,18,19,19,20,20,20-d<sub>11</sub> acid

**Synonyms:** 8,12-iso-Isoprostane-F<sub>2α</sub>-VI-d<sub>11</sub>, 12-iso-  
5,6E,14Z-PGF<sub>2α</sub>-d<sub>11</sub>, 12-iso-5,6E,14Z-  
Prostaglandin F<sub>2α</sub>-d<sub>11</sub>

**MF:** C<sub>20</sub>H<sub>34</sub>O<sub>5</sub>

**FW:** 354.5

**Chemical Purity:** ≥95% (8,12-iso-iPF<sub>2α</sub>-V)

**Deuterium**

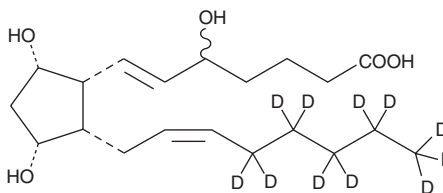
**Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>11</sub>); ≤1% d<sub>0</sub>

**Supplied as:** A solution in acetonitrile

**Storage:** -80°C

**Stability:** ≥1 year

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



## Laboratory Procedures

8,12-iso-Isoprostane-F<sub>2α</sub>-VI-d<sub>11</sub> (8,12-iso-iPF<sub>2α</sub>-VI-d<sub>11</sub>) is intended for use as an internal standard for the quantification of 8,12-iso-iPF<sub>2α</sub>-VI (Item No. 16310) 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).

8,12-iso-iPF<sub>2α</sub>-VI-d<sub>11</sub> is supplied as a solution in acetonitrile. To change the solvent, simply evaporate the acetonitrile 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 8,12-iso-iPF<sub>2α</sub>-VI-d<sub>11</sub> in these solvents is approximately 100 mg/ml.

## Description

Isoprostanes are non-enzymatic, non-cyclooxygenase prostanoid products of peroxidative damage to membrane lipids.<sup>1</sup> Among the many isoprostane isomers, 8,12-iso-iPF<sub>2α</sub>-VI has been demonstrated to be one of the predominant isomers formed and is also present in urine as one of the major isoprostane products.<sup>2</sup> 8,12-iso-iPF<sub>2α</sub>-VI-d<sub>11</sub> is a deuterated internal standard for use in isoprostane quantitation by MS modalities. The compound is diastereomeric at C-5, but is otherwise an optically active, single enantiomer.

## References

1. Diaz, M.N., Frei, B., Vita, J.A., *et al.* Antioxidants and atherosclerotic heart disease. *N. Engl. J. Med.* **337**(6), 408-416 (1997).
2. Lawson, J.A., Li, H., Rokach, J., *et al.* Identification of two major F<sub>2</sub> isoprostanes, 8,12-iso- and 5-epi-8,12-iso-isoprostane F<sub>2α</sub>-VI, in human urine. *J. Biol. Chem.* **273**(45), 29295-29301 (1998).

### 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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