

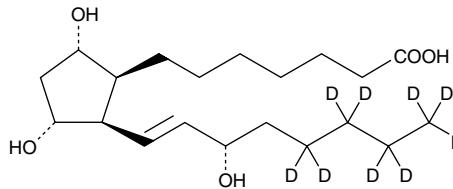
# Product Information



## 8-*iso* Prostaglandin F<sub>1α</sub>-d<sub>9</sub>

Item No. 10008935

**Formal Name:** 9α,11α,15S-trihydroxy-(8β)-prost-13E-en-1-oic-17,17,18,18,19,19,20,20,20-d<sub>9</sub> acid  
**Synonym:** 8-*epi* PGF<sub>1α</sub>-d<sub>9</sub>  
**MF:** C<sub>20</sub>H<sub>27</sub>D<sub>9</sub>O<sub>5</sub>  
**FW:** 365.6  
**Chemical Purity:** ≥98%  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>9</sub>); ≤1% d<sub>0</sub>  
**Stability:** ≥1 year at -20°C  
**Supplied as:** A solution in methyl acetate



### Laboratory Procedures

8-*iso* Prostaglandin F<sub>1α</sub>-d<sub>9</sub> (8-*iso* PGF<sub>1α</sub>-d<sub>9</sub>) contains nine deuterium atoms at the 17, 17', 18, 18', 19, 19', 20, 20, and 20 positions. It is intended for use as an internal standard for the quantification of 8-*iso* PGF<sub>1α</sub> by GC- or LC-mass spectrometry (MS). For long term storage, we suggest that 8-*iso* PGF<sub>1α</sub>-d<sub>9</sub> be stored as supplied at -20°C. It should be stable for at least one year.

8-*iso* PGF<sub>1α</sub>-d<sub>9</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 (DMF) purged with an inert gas can be used. The solubility of 8-*iso* PGF<sub>1α</sub>-d<sub>9</sub> in these solvents is approximately 50 mg/ml.

8-*iso* PGF<sub>1α</sub>-d<sub>9</sub> is used as an internal standard for the quantification of 8-*iso* PGF<sub>1α</sub> by stable isotope dilution 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-*iso* PGF<sub>1α</sub> is an isoprostane that was first identified in human semen.<sup>1</sup> It is a member of the isoprostane family, which are eicosanoids of non-cyclooxygenase origin. 8-*iso* PGF<sub>1α</sub> is present along with its 19-hydroxy congener at 5-10 µg/ml of seminal plasma.<sup>2</sup>

### References

1. Svanborg, K., Bygdeman, M., and Eneroth, P. The F and 19-hydroxy F prostaglandins and their 8β-isomers in human seminal plasma: Data on chromatography and mass spectrometry. *Biomedical Mass Spectrometry* **10**, 495-498 (1983).
2. Taylor, P.L. The 8-isoprostaglandins: Evidence for eight compounds in human semen. *Prostaglandins* **17**, 259-267 (1979).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/10008935](http://www.caymanchem.com/catalog/10008935)

**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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