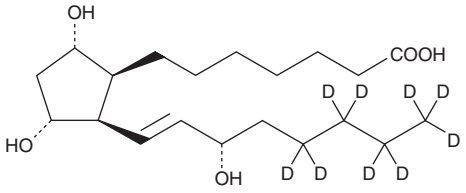
PRODUCT INFORMATION

8-*iso* Prostaglandin $F_{1\alpha}$-d_9

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_9 acid
Synonyms:	8-*epi* $PGF_{1\alpha}$-d_9, 8-*iso* $PGF_{1\alpha}$-d_9
MF:	$C_{20}H_{27}D_9O_5$
FW:	365.6
Chemical Purity:	≥98%
Deuterium Incorporation:	≥99% deuterated forms (d_1-d_9); ≤1% d_0
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

8-*iso* Prostaglandin $F_{1\alpha}$-d_9 (8-*iso* $PGF_{1\alpha}$-d_9) is intended for use as an internal standard for the quantification of 8-*iso* $PGF_{1\alpha}$ (Item No. 15350) 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-*iso* $PGF_{1\alpha}$-d_9 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* $PGF_{1\alpha}$-d_9 in is these solvents is approximately 50 mg/ml.

Description

8-*iso* $PGF_{1\alpha}$ is an isoprostane that was first identified in human semen.[1] It is a member of the isoprostane family, which are eicosanoids of non-cyclooxygenase origin. 8-*iso* $PGF_{1\alpha}$ is present along with its 19-hydroxy congener at 5-10 µg/ml of seminal plasma.[2]

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).

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