

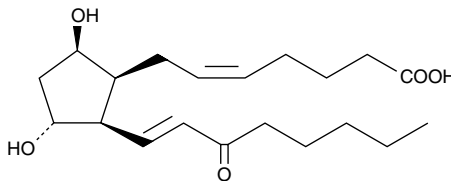
# Product Information



## 8-*iso*-15-keto Prostaglandin F<sub>2β</sub>

Item No. 10008539

**CAS Registry No.:** 1621482-36-7  
**Formal Name:** 9β,11α-dihydroxy-15-oxo-(8β)-prosta-5Z,13E-dien-1-oic acid  
**MF:** C<sub>20</sub>H<sub>32</sub>O<sub>5</sub>  
**FW:** 352.5  
**Purity:** ≥95%  
**Stability:** ≥1 year at -20°C  
**Supplied as:** A solution in methyl acetate  
**UV/Vis.:** λ<sub>max</sub>: 234 nm



### Laboratory Procedures

For long term storage, we suggest that 8-*iso*-15-keto Prostaglandin F<sub>2β</sub> (8-*iso*-15-keto-PGF<sub>2β</sub>) be stored as supplied at -20°C. It should be stable for at least one year.

8-*iso*-15-keto PGF<sub>2β</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 8-*iso*-15-keto PGF<sub>2β</sub> in these solvents is approximately 50 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of 8-*iso*-15-keto PGF<sub>2β</sub> is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of 8-*iso*-15-keto PGF<sub>2β</sub> in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

8-*iso* PGF<sub>2β</sub> is an isomer of PGF<sub>2β</sub> of non-enzymatic origin. It is one of 64 possible isomers of PGF<sub>2β</sub> which can be produced by free radical peroxidation of arachidonic acid. 8-*iso* PGF<sub>2β</sub> exhibits very weak contraction of human umbilical vein artery and does not promote aggregation of human whole blood.<sup>1,2</sup> However, 8-*iso* PGF<sub>2β</sub> moderately contracts both the canine and porcine pulmonary vein, although the effect is much weaker than that exhibited by other isoprostanes such as 8-*iso* PGE<sub>1</sub>, 8-*iso* PGE<sub>2</sub>, or 8-*iso* PGF<sub>2β</sub>.<sup>3,4</sup> 8-*iso*-15-keto PGF<sub>2β</sub> is a potential metabolite of 8-*iso* PGF<sub>2β</sub> via the 15-hydroxy PG dehydrogenase pathway. There are no published reports on the formation or biological activity of 8-*iso*-15-keto PGF<sub>2β</sub>.

### References

1. Oliveira, L., Stallwood, N.A., and Crankshaw, D.J. Effects of some isoprostanes on the human umbilical artery *in vitro*. *Br. J. Pharmacol.* **129**, 509-514 (2000).
2. Cranshaw, J.H., Evans, T.W., and Mitchell, J.A. Characterization of the effects of isoprostanes on platelet aggregation in human whole blood. *Br. J. Pharmacol.* **132**, 1699-1706 (2001).
3. Janssen, L.J., Premji, M., Netherton, S., *et al.* Vasoconstrictor actions of isoprostanes *via* tyrosine kinase and Rho kinase in human and canine pulmonary vascular smooth muscles. *Br. J. Pharmacol.* **132**, 127-134 (2001).
4. Janssen, L.J. and Tazzeo, T. Involvement of TP and EP3 receptors in vasoconstrictor responses to isoprostanes in pulmonary vasculature. *J. Pharmacol. Exp. Ther.* **301**(3), 1060-1066 (2002).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/10008539](http://www.caymanchem.com/catalog/10008539)

**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, 12/10/2014

### 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](mailto:custserv@caymanchem.com)

#### Web

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