

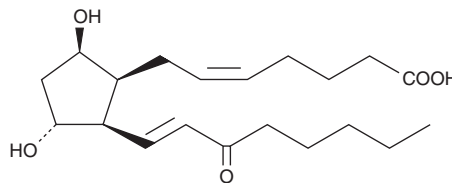
PRODUCT INFORMATION



8-*iso*-15-keto Prostaglandin F_{2β}

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: C₂₀H₃₂O₅
FW: 352.5
Purity: ≥95%
UV/Vis.: λ_{max}: 234 nm
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*-15-keto Prostaglandin F_{2β} (8-*iso*-15-keto PGF_{2β}) 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_{2β} in these solvents is approximately 50 mg/ml.

8-*iso*-15-keto PGF_{2β} is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of 8-*iso*-15-keto PGF_{2β} should be diluted with the aqueous buffer of choice. The solubility of 8-*iso*-15-keto PGF_{2β} in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

8-*iso* PGF_{2β} is an isomer of PGF_{2α} of non-enzymatic origin. It is one of 64 possible isomers of PGF_{2α} which can be produced by free radical peroxidation of arachidonic acid. 8-*iso* PGF_{2β} exhibits very weak contraction of human umbilical vein artery and does not promote aggregation of human whole blood.^{1,2} However, 8-*iso* PGF_{2β} 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* PGE₁, 8-*iso* PGE₂, or 8-*iso* PGF_{2α}.^{3,4} 8-*iso*-15-keto PGF_{2β} is a potential metabolite of 8-*iso* PGF_{2β} via the 15-hydroxy PG dehydrogenase pathway. There are no published reports on the formation or biological activity of 8-*iso*-15-keto PGF_{2β}.

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**(3), 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**(8), 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**(1), 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).

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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