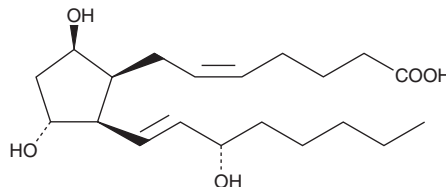


PRODUCT INFORMATION



8-iso Prostaglandin F_{2β} Item No. 16370

CAS Registry No.: 177020-26-7
Formal Name: (8β)-9β,11α,15S-trihydroxy-prosta-5Z,13E-dien-1-oic acid
Synonyms: 8-*epi* PGF_{2β}, 8-*iso* PGF_{2β}, 8-*iso*-9β-PGF_{2α}
MF: C₂₀H₃₄O₅
FW: 354.5
Purity: ≥98%
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_{2β} (8-*iso* 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* PGF_{2β} in these solvents is approximately 100 mg/ml. 8-*iso* PGF_{2β} is soluble in 10 mM Na₂CO₃ at a concentration of approximately 6.5 mg/ml.

8-*iso* PGF_{2β} is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of 8-*iso* PGF_{2β} should be diluted with the aqueous buffer of choice. The solubility of 8-*iso* PGF_{2β} in PBS (pH 7.2) is approximately 10 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} with a non-enzymatic, non-cyclooxygenase 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}

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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