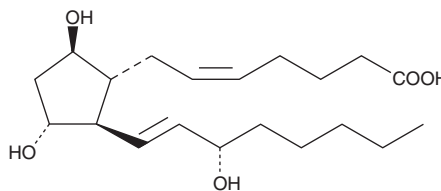


PRODUCT INFORMATION



Prostaglandin F_{2β} Item No. 16410

CAS Registry No.: 4510-16-1
Formal Name: 9β,11α,15S-trihydroxy-prosta-5Z,13E-dien-1-oic acid
Synonyms: 9β-PGF_{2α}, PGF_{2β}
MF: C₂₀H₃₄O₅
FW: 354.5
Purity: ≥99%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Prostaglandin F_{2β} (PGF_{2β}) is supplied as a crystalline solid. A stock solution may be made by dissolving the PGF_{2β} in the solvent of choice, which should be purged with an inert gas. PGF_{2β} is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of PGF_{2β} in these solvents is approximately 100 mg/ml. The solubility of PGF_{2β} in 10 mM Na₂CO₃ is approximately 6.5 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. Organic solvent-free aqueous solutions of PGF_{2β} can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 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

PGF_{2β} is the 9β-hydroxy stereoisomer of PGF_{2α}. It is much less active than PGF_{2α} in antifertility and bronchoconstrictor activities.¹⁻³ PGF_{2β} exhibits bronchodilating activity in guinea pigs and cats and antagonizes the bronchoconstrictor activity of PGF_{2α}.³

References

1. Miller, W.L. and Sutton, M.J. Relative biological activity of certain prostaglandins and their enantiomers. *Prostaglandins* **11(1)**, 77-84 (1976).
2. Gardiner, P.J. and Collier, H.O.J. Specific receptors for prostaglandins in airways. *Prostaglandins* **19(6)**, 819-841 (1980).
3. Rosenthale, M.E., Dervinis, A., Kassarich, J., et al. Bronchodilating properties of the prostaglandin F_{2β} in the guinea pig and cat. *Prostaglandins* **3(6)**, 767-772 (1973).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM