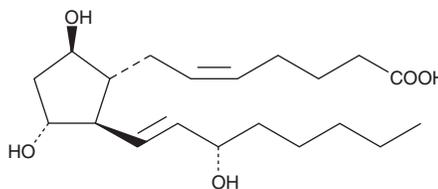


# PRODUCT INFORMATION



## Prostaglandin F<sub>2β</sub> 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<sub>2α</sub>, PGF<sub>2β</sub>  
**MF:** C<sub>20</sub>H<sub>34</sub>O<sub>5</sub>  
**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<sub>2β</sub> (PGF<sub>2β</sub>) is supplied as a crystalline solid. A stock solution may be made by dissolving the PGF<sub>2β</sub> in the solvent of choice, which should be purged with an inert gas. PGF<sub>2β</sub> is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of PGF<sub>2β</sub> in these solvents is approximately 100 mg/ml. The solubility of PGF<sub>2β</sub> in 10 mM Na<sub>2</sub>CO<sub>3</sub> 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<sub>2β</sub> can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of PGF<sub>2β</sub> 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<sub>2β</sub> is the 9β-hydroxy stereoisomer of PGF<sub>2α</sub>. It is much less active than PGF<sub>2α</sub> in antifertility and bronchoconstrictor activities.<sup>1-3</sup> PGF<sub>2β</sub> exhibits bronchodilating activity in guinea pigs and cats and antagonizes the bronchoconstrictor activity of PGF<sub>2α</sub>.<sup>3</sup>

### 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<sub>2β</sub> 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.

#### WARRANTY AND LIMITATION OF REMEDY

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