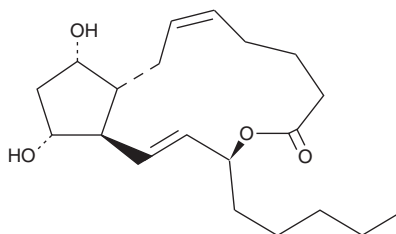


# PRODUCT INFORMATION



## Prostaglandin F<sub>2α</sub> 1,15-lactone Item No. 16120

**CAS Registry No.:** 55314-49-3  
**Formal Name:** 9α,11α,15S-trihydroxy-prosta-5Z,13E-dien-1-oic acid, λ-lactone  
**Synonym:** PGF<sub>2α</sub> 1,15-lactone  
**MF:** C<sub>20</sub>H<sub>32</sub>O<sub>4</sub>  
**FW:** 336.5  
**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>2α</sub> (PGF<sub>2α</sub>) 1,15-lactone is supplied as a crystalline solid. A stock solution may be made by dissolving the PGF<sub>2α</sub> 1,15-lactone in the solvent of choice, which should be purged with an inert gas. PGF<sub>2α</sub> 1,15-lactone is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of PGF<sub>2α</sub> 1,15-lactone in these solvents is approximately 105, 10, and 20.4 mg/ml, respectively.

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>2α</sub> 1,15-lactone can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of PGF<sub>2α</sub> 1,15-lactone in PBS (pH 7.2) is approximately 0.05 mg/ml. For maximum solubility in aqueous buffers, PGF<sub>2α</sub> 1,15-lactone should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. PGF<sub>2α</sub> 1,15-lactone has a solubility of approximately 8 mg/ml in a 30:70 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

PGF<sub>2α</sub> 1,15-lactone is a lipid-soluble internal ester of PGF<sub>2α</sub>. Hydrolysis of the lactone readily produces free PGF<sub>2α</sub> in plasma. In rhesus monkeys, a total dose of 15 mg of PGF<sub>2α</sub> 1,15-lactone terminates early pregnancy, whereas PGF<sub>2α</sub> is ineffective.<sup>1</sup>

### Reference

1. Spilman, C.H., Beuving, D.C., Forbes, A.D., *et al.* Effects of PGF<sub>2α</sub> and PGF<sub>2α</sub> 1-15 lactone on the corpus luteum and on early pregnancy in the rhesus monkey. *Prostaglandins* **14(3)**, 477-488 (1977).

#### 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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