

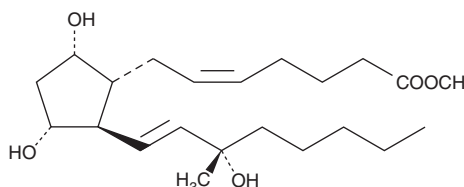
# PRODUCT INFORMATION



## 15(S)-15-methyl Prostaglandin F<sub>2α</sub> methyl ester

Item No. 16744

**CAS Registry No.:** 35700-21-1  
**Formal Name:** 9α,11α,15S-trihydroxy-15-methyl-prosta-5Z,13E-dien-1-oic acid, methyl ester  
**Synonyms:** Methyl carboprost, 15(S)-15-methyl PGF<sub>2α</sub> methyl ester, U-36384  
**MF:** C<sub>22</sub>H<sub>38</sub>O<sub>5</sub>  
**FW:** 382.5  
**Purity:** ≥98%  
**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

15(S)-15-methyl Prostaglandin F<sub>2α</sub> methyl ester (15(S)-15-methyl PGF<sub>2α</sub> methyl ester) is supplied as a crystalline solid. A stock solution may be made by dissolving the 15(S)-15-methyl PGF<sub>2α</sub> methyl ester in the solvent of choice, which should be purged with an inert gas. 15(S)-15-methyl PGF<sub>2α</sub> methyl ester is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 15(S)-15-methyl PGF<sub>2α</sub> methyl ester in these solvents is approximately 50 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 15(S)-15-methyl PGF<sub>2α</sub> methyl ester can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 15(S)-15-methyl PGF<sub>2α</sub> methyl ester in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

15(S)-15-methyl PGF<sub>2α</sub> methyl ester is a derivative of 15(S)-15-methyl PGF<sub>2α</sub> with increased membrane permeability.<sup>1,2</sup> Hydrolysis of the methyl ester *in vivo* releases the biologically active 15(S)-15-methyl PGF<sub>2α</sub>, which is a potent uterine stimulant and abortifacient.<sup>3-5</sup>

### References

1. Roseman, T.J., Biermacher, J.J., Bennett, R.M., *et al.* Design criteria for controlled release delivery systems of carboprost methyl. *J. Control. Release* **3(1-4)**, 25-37 (1986).
2. Halstead, G.W. and Theis, D.L. Drug release testing of a prostaglandin containing controlled-release vaginal device: Development of a semi-automated method. *J. Pharm. Sci.* **74(10)**, 1086-1090 (1985).
3. Carlan, S.J., Gushwa, J.P., O'Brien, W.F., *et al.* Effect of intramuscular 15-methyl prostaglandin F<sub>2α</sub> after second-trimester delivery. *Obstet. Gynecol.* **89(1)**, 5-9 (1997).
4. Lindblom, B., Källfelt, B., Hahlin, M., *et al.* Local prostaglandin F<sub>2α</sub> injection for termination of ectopic pregnancy. *Lancet* **1(8536)**, 776-777 (1987).
5. Adaikan, P.G., Prasad, R.N.V., Kottegoda, S.R., *et al.* Effect of indomethacin on the injection-abortion interval of 15(S)15 methyl PGF<sub>2α</sub>-induced mid-trimester abortions - a randomized study. *Prostaglandins Leukot. Med.* **27(2-3)**, 161-167 (1987).

#### 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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