**PRODUCT INFORMATION**

**11β-Prostaglandin F₂α**  
*Item No. 16520*

**CAS Registry No.:** 38432-87-0  
**Formal Name:** 9α,11β,15S-trihydroxy-prosta-5Z,13E-dien-1-oic acid  
**Synonyms:** 9α,11β-PGF₂α, 11β-PGF₂α, 11-epi PGF₂α  
**MF:** C₂₀H₃₄O₅  
**FW:** 354.5  
**Purity:** ≥98%  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly.

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**Laboratory Procedures**

11β-Prostaglandin F₂α (11β-PGF₂α) is supplied as a crystalline solid. A stock solution may be made by dissolving the 11β-PGF₂α in an organic solvent purged with an inert gas. 11β-PGF₂α is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 11β-PGF₂α in these solvents is approximately 100 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. If an organic solvent-free solution of 11β-PGF₂α is needed, it can be prepared by dissolving the crystalline solid in aqueous buffers. The solubility of 11β-PGF₂α in PBS, pH 7.2, is approximately 10 mg/ml. Store aqueous solutions of 11β-PGF₂α on ice and use within 12 hours of preparation.

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**Description**

11β-PGF₂α is the primary plasma metabolite of PGD₂ (Item No. 12010) in vivo.¹ Normal human urinary excretion of 11β-PGF₂α is about 54 ng/mmol creatinine, which is increased nearly 3-fold upon allergen-induced bronchoconstriction in asthmatics.² It is equipotent to PGF₂α in inducing human bronchial smooth muscle contractions and inhibition of adipose differentiation.³,⁴ 11β-PGF₂α inhibits ADP or thrombin-induced human platelet aggregation at concentrations of 0.14 to 2.8 µM.⁵

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**References**