Prostaglandin F$_2\beta$

**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$_2\beta$, PGF$_{2\beta}$

**MF:** C$_{20}$H$_{34}$O$_5$

**FW:** 354.5

**Purity:** ≥99%

**Stability:** ≥2 years at -20ºC

**Supplied as:** A crystalline solid

**Laboratory Procedures**

For long term storage, we suggest that prostaglandin F$_2\beta$ (PGF$_{2\beta}$) be stored as supplied at -20ºC. It should be stable for at least two years.

PGF$_{2\beta}$ is supplied as a crystalline solid. A stock solution may be made by dissolving the PGF$_{2\beta}$ in an organic solvent. PGF$_{2\beta}$ is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of PGF$_{2\beta}$ in these solvents is approximately 100 mg/ml. PGF$_{2\beta}$ will be stable for at least six months in these solvents if stored at -20ºC.

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$_{2\beta}$ can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of PGF$_{2\beta}$ in PBS is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

PGF$_{2\beta}$ is the 9β-hydroxy stereoisomer of PGF$_{2\alpha}$. PGF$_{2\beta}$ is much less active than PGF$_{2\alpha}$ in antifertility and bronchoconstrictor activities.1-3 PGF$_{2\beta}$ exhibits bronchodilating activity in guinea pigs and cats and antagonizes the bronchoconstrictor activity of PGF$_{2\alpha}$.

**References**


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