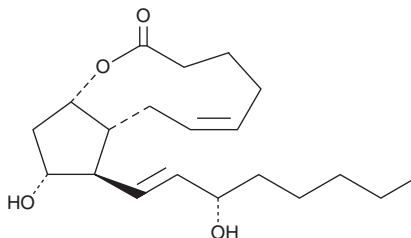


PRODUCT INFORMATION



Prostaglandin F_{2α} 1,9-lactone Item No. 16130

CAS Registry No.: 55314-48-2
Formal Name: 9α,11α,15S-trihydroxy-prosta-5Z,13E-dien-1-oic acid, θ-lactone
Synonym: PGF_{2α} 1,9-lactone
MF: C₂₀H₃₂O₄
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_{2α} (PGF_{2α}) 1,9-lactone is supplied as a crystalline solid. A stock solution may be made by dissolving the PGF_{2α} 1,9-lactone in the solvent of choice, which should be purged with an inert gas. PGF_{2α} 1,9-lactone is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of PGF_{2α} 1,9-lactone in these solvents is approximately 100, 10, and 20 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_{2α} 1,9-lactone can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of PGF_{2α} 1,9-lactone in PBS (pH 7.2) is approximately 0.05 mg/ml. For maximum solubility in aqueous buffers, PGF_{2α} 1,9-lactone should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. PGF_{2α} 1,9-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_{2α} 1,9-lactone is a lipid-soluble internal ester of PGF_{2α}. It is resistant to hydrolysis by human plasma esterases even after incubation for 20 hours under physiological conditions.¹ PGF_{2α} 1,9-lactone exhibits little antifertility and vasoactivity compared to PGF_{2α}.¹

Reference

1. Bundy, G.L., Peterson, D.C., Cornette, J.C., *et al.* Synthesis and biological activity of prostaglandin lactones. *J. Med. Chem.* **26(8)**, 1089-1099 (1983).

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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