

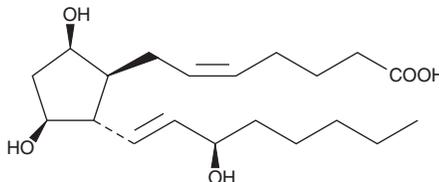
PRODUCT INFORMATION



ent-Prostaglandin F_{2α}

Item No. 10008122

CAS No.: 54483-31-7
Formal Name: 9β,11β,15R-trihydroxy-(8β,12α)-prosta-5Z,13E-dien-1-oic acid
Synonyms: ent-PGF_{2α}; (-)-Prostaglandin F_{2α}
MF: C₂₀H₃₄O₅
FW: 354.5
Purity: ≥98%
Supplied as: A solution in methyl acetate
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

ent-PGF_{2α} is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of ent-PGF_{2α} 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. If an organic solvent-free solution of ent-PGF_{2α} is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of ent-PGF_{2α} in PBS, pH 7.2, is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Enzymatically-derived prostaglandin F_{2α} (PGF_{2α}) is an optically pure compound whereas PGF_{2α} derived from the free radical-catalyzed peroxidation of arachidonate is a racemic mixture. Ent-PGF_{2α} is the opposite enantiomer of PGF_{2α}. This compound can only be generated *via* the isoprostane pathway of free radical-catalyzed lipid peroxidation and has been implicated as a marker of oxidative stress. Levels of ent-PGF_{2α} are elevated in human urine from heavy cigarette smokers and patients with hypercholesterolemia.¹

References

1. Yin, H., Gao, L., Tai, H.H., *et al.* Urinary prostaglandin F_{2α} is generated from the isoprostane pathway and not the cyclooxygenase in humans. *J. Bio. Chem.* 282(1), 329-336 (2007).

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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