

PRODUCT INFORMATION



Prostaglandin F_{1α} MaxSpec[®] Standard

Item No. 25900

CAS Registry No.: 745-62-0

Formal Name: 9α,11α,15S-trihydroxy-prost-13E-en-1-oic acid

Synonym: PGF_{1α}

MF: C₂₀H₃₆O₅

FW: 356.5

Purity: ≥95%

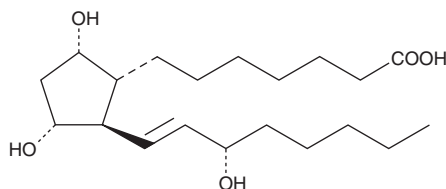
Supplied as: A solution in ethanol; in a deactivated glass ampule

Concentration: 100 μg/ml (nominal); see certificate of analysis for verified concentration

Storage: -20°C

Stability: ≥5 years; *Stability testing is ongoing to ensure concentration accuracy. The certificate of analysis and product expiry date will be updated upon completion of testing.*

Special Conditions: Store upright and unopened at -20°C. Warm to room temperature prior to opening. Light sensitive.



Description

Prostaglandin F_{1α} (PGF_{1α}) is the putative metabolite of dihomo-γ-linolenic acid (DGLA) via the cyclooxygenase (COX) pathway. Both PGF_{1α} and PGF_{2α} (Item Nos. 16010 | 10007221) have been shown to act as priming pheromones for male Atlantic salmon with a threshold concentration of 10⁻¹¹ M.¹ PGF_{1α} binds to the ovine corpus luteum FP receptor at only 8% of the relative potency of PGF_{2α}.² It is only half as active as PGF_{2α} in inducing human respiratory smooth muscle contractions *in vitro*.³

PGF_{1α} MaxSpec[®] standard is a quantitative grade standard of PGF_{1α} (Item No. 15010) that has been prepared specifically for mass spectrometry or any application where quantitative reproducibility is required. The solution has been prepared gravimetrically and is supplied in a deactivated glass ampule sealed under argon. The concentration was verified by comparison to an independently prepared calibration standard. This PGF_{1α} MaxSpec[®] standard is guaranteed to meet identity, purity, stability, and concentration specifications and is provided with a batch-specific certificate of analysis. Ongoing stability testing is performed to ensure the concentration remains accurate throughout the shelf life of the product.

Note: The amount of solution added to the vial is in excess of the listed amount. Therefore, it is necessary to accurately measure volumes for preparation of calibration standards. Follow recommended storage and handling conditions to maintain product quality.

References

1. Moore, A. and Waring, C.P. Electrophysiological and endocrinological evidence that F-series prostaglandins function as priming pheromones in mature male Atlantic salmon (*Salmo salar*) PARR. *J. Exp. Biol.* **199**(Pt 10), 2307-2316 (1996).
2. Balapure, A.K., Rexroad, C.E., Jr., Kawada, K., *et al.* Structural requirements for prostaglandin analog interaction with the ovine corpus luteum prostaglandin F_{2α} receptor. *Biochem. Pharmacol.* **38**(14), 2375-2381 (1989).
3. Karim, S.M.M., Adaikan, P.G., and Kottegoda, S.R. Prostaglandins and human respiratory tract smooth muscle: Structure activity relationship. *Adv. Prostaglandin Thromboxane Res.* **7**, 969-980 (1980).

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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