

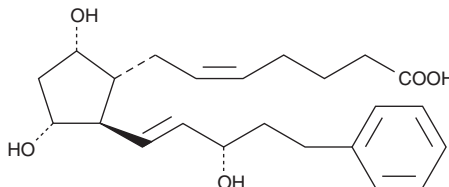
Product Information



17-phenyl trinor Prostaglandin F_{2α}

Item No. 16810

CAS Registry No.: 38344-08-0
Formal Name: 9α,11α,15S-trihydroxy-17-phenyl-18,19,20-trinor-prosta-5Z,13E-dien-1-oic acid
Synonyms: Bimatoprost (free acid), 17-phenyl trinor PGF_{2α}
MF: C₂₃H₃₂O₅
FW: 388.5
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that 17-phenyl trinor prostaglandin F_{2α} (17-phenyl trinor PGF_{2α}) be stored as supplied at -20°C. It should be stable for at least 2 years.

17-phenyl trinor PGF₂ is supplied as a crystalline solid. A stock solution may be made by dissolving the 17-phenyl trinor PGF_{2α} in an organic solvent purged with an inert gas. 17-phenyl trinor PGF_{2α} is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 17-phenyl trinor PGF_{2α} 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. Organic solvent-free aqueous solutions of 17-phenyl trinor PGF_{2α} can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of 17-phenyl trinor PGF_{2α} in PBS (pH 7.2) is approximately 800 µg/ml. We do not recommend storing the aqueous solution for more than one day.

17-phenyl trinor PGF_{2α} is a metabolically stable analog of PGF_{2α} and is a potent agonist for the FP receptor. It binds to the FP receptor on ovine luteal cells with a relative potency of 756% compared to that of PGF_{2α}.¹ At the rat recombinant FP receptor expressed in CHO cells 17-phenyl trinor PGF_{2α} inhibits PGF_{2α} binding with a K_i value of 1.1 nM.² The isopropyl ester of 17-phenyl trinor PGF_{2α} is slightly better than PGF_{2α} isopropyl ester in reducing the intraocular pressure in the cat eye without any irritation.³

References

1. 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. Implications for development of a photoaffinity probe. *Biochem. Pharmacol.* **38**, 2375-2381 (1989).
2. Lake, S., Gullberg, H., Wahlqvist, J., *et al.* Cloning of the rat and human prostaglandin F_{2α} receptors and the expression of the rat prostaglandin F_{2α} receptor. *FEBS Lett.* **355**, 317-325 (1994).
3. Stjerschantz, J. and Resul, B. Phenyl substituted prostaglandin analogs for glaucoma treatment. *Drugs of the Future* **17**, 691-704 (1992).

Related Products

15(R)-17-phenyl trinor Prostaglandin F_{2α} - Item No. 16814 • 17-phenyl trinor Prostaglandin F_{2α} ethyl amide - Item No. 16820 • 17-phenyl trinor Prostaglandin F_{2α} amide - Item No. 16821 • 17-phenyl trinor Prostaglandin F_{2α} diethyl amide - Item No. 16823 • 17-phenyl trinor Prostaglandin F_{2α} isopropyl ester - Item No. 16824 • 15(R)-17-phenyl trinor Prostaglandin F_{2α} isopropyl ester - Item No. 16825 • 17-phenyl trinor Prostaglandin F_{2α}-d₄ - Item No. 316810 • 17-phenyl trinor Prostaglandin F_{2α} ethyl amide-d₄ - Item No. 316820 • 17-phenyl trinor Prostaglandin F_{2α} ethyl amide EIA Kit - Item No. 516821 • 17-phenyl trinor Prostaglandin F_{2α} ethyl amide EIA Kit (Solid Plate) - Item No. 516821.1 • 17-phenyl trinor Prostaglandin F_{2α} cyclohexyl amide - Item No. 9000686 • 17-phenyl trinor Prostaglandin F_{2α} serinol amide - Item No. 10004237 • 15(R)-17-phenyl trinor Prostaglandin F_{2α} ethyl amide - Item No. 10008127 • 5-*trans*-17-phenyl trinor Prostaglandin F_{2α} ethyl amide - Item No. 10008132 • 15-keto-17-phenyl trinor Prostaglandin F_{2α} ethyl amide - Item No. 10010405 • 17-phenyl trinor Prostaglandin F_{2α} cyclopropyl amide - Item No. 10010605 • 17-phenyl trinor Prostaglandin F_{2α} cyclopropyl methyl amide - Item No. 10010810

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have any obligation or liability, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees. Buyer's exclusive remedy and Cayman's sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman's option, the replacement, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.

Copyright Cayman Chemical Company, 03/11/2011

Cayman Chemical

Mailing address
1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone
(800) 364-9897
(734) 971-3335

Fax
(734) 971-3640

E-Mail
custserv@caymanchem.com

Web
www.caymanchem.com