

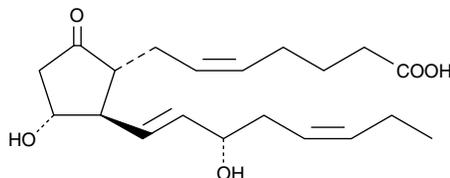
Product Information



Prostaglandin E₃

Item No. 14990

CAS Registry No.: 802-31-3
Formal Name: 9-oxo-11 α ,15S-dihydroxy-prosta-5Z,13E,17Z-trien-1-oic acid
Synonym: PGE₃
MF: C₂₀H₃₀O₅
FW: 350.5
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A solution in methyl acetate



Laboratory Procedures

For long term storage, we suggest that Prostaglandin E₃ (PGE₃) be stored as supplied at -20°C. It will be stable for at least one year.

PGE₃ 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 PGE₃ 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 solutions of PGE₃ can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of PGE₃ in PBS (pH 7.2) is approximately 5 mg/ml. Avoid adding PGE₃ to basic solutions (pH > 7.4) as base treatment will cause PGE₃ to undergo β -elimination to give the corresponding A and B prostaglandins. Store aqueous solutions of PGE₃ on ice and use within 12 hours. We strongly recommend using a fresh preparation each day.

PGE₃ is formed *via* the cyclooxygenase (COX) metabolism of eicosapentaenoic acid (EPA).¹ In human ocular tissue, it comprises 2.4% of the COX products formed.¹ When applied to the eyes of a rabbit, a 1 μ g dose of PGE₃ decreases intraocular pressure from 21 mmHg to about 17 mmHg.²

References

1. Kulkarni, P.S. and Srinivasan, B.D. Eicosapentaenoic acid metabolism in human and rabbit anterior uvea. *Prostaglandins* **31**, 1159-1164 (1986).
2. Kulkarni, P.S. and Srinivasan, B.D. Prostaglandins E₃ and D₃ lower intraocular pressure. *Invest. Ophthalmol. Vis. Sci.* **26**, 1178-1182 (1985).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/14990

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

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 Safety Data Sheet, which has been sent *via* email to your institution.

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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**.

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