

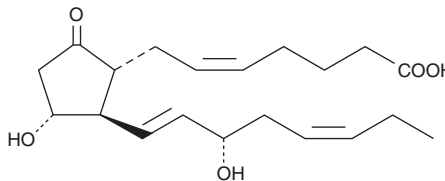
# PRODUCT INFORMATION



## Prostaglandin E<sub>3</sub>

Item No. 14990

**CAS Registry No.:** 802-31-3  
**Formal Name:** 11 $\alpha$ ,15S-dihydroxy-9-oxo-prosta-5Z,13E,17Z-trien-1-oic acid  
**Synonym:** PGE<sub>3</sub>  
**MF:** C<sub>20</sub>H<sub>30</sub>O<sub>5</sub>  
**FW:** 350.5  
**Purity:**  $\geq$ 98%  
**Supplied as:** A solution in methyl acetate  
**Storage:** -20°C  
**Stability:**  $\geq$ 1 year



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

### Laboratory Procedures

Prostaglandin E<sub>3</sub> (PGE<sub>3</sub>) 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 PGE<sub>3</sub> in these solvents is approximately 100 mg/ml.

PGE<sub>3</sub> is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of PGE<sub>3</sub> should be diluted with the aqueous buffer of choice. The solubility of PGE<sub>3</sub> in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

PGE<sub>3</sub> is formed via the cyclooxygenase (COX) metabolism of eicosapentaenoic acid.<sup>1</sup> In human ocular tissue, it comprises 2.4% of the COX products formed.<sup>1</sup> When applied to the eyes of a rabbit, a 1  $\mu$ g dose of PGE<sub>3</sub> decreases intraocular pressure from 21 mmHg to about 17 mmHg.<sup>2</sup>

### References

1. Kulkarni, P.S. and Srinivasan, B.D. Eicosapentaenoic acid metabolism in human and rabbit anterior uvea. *Prostaglandins* **31(6)**, 1159-1164 (1986).
2. Kulkarni, P.S. and Srinivasan, B.D. Prostaglandins E<sub>3</sub> and D<sub>3</sub> lower intraocular pressure. *Invest. Ophthalmol. Vis. Sci.* **26(8)**, 1178-1182 (1985).

**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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