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Product Information

Prostaglandin E₂

Product Number **P 4172**

Storage Temperature -0 °C

Product Description

Molecular Formula: C₂₀H₃₂O₅

Molecular Weight: 352.5

CAS Number: 363-24-6

Synonym: PGE₂

Prostaglandin E₂ is a signal molecule produced by activated platelets. The release of PGE₂ by activated platelets is part of a mechanism by which activated platelets may recruit adjacent erythrocytes to help in clot formation.¹ It lowered the filterability of human erythrocytes by approximately 30% at a concentration of 10⁻¹⁰ M and also caused a reduction in mean cell volume by about 10%. The cause of cell shrinkage was the induction of a PGE₂-stimulated K⁺ efflux pathway leading to rapid loss of cellular K⁺ ions. This loss was also Ca²⁺ dependent.

PGE₂ has been shown to stimulate of the production of interleukin-6 (IL-6) by neonatal mouse parietal bones. After 6 hours in culture, cells stimulated with 10⁻⁸ M PGE₂ produced significantly more IL-6 than controls.² The activity of PGE₂ is not inhibited by dexamethasone.³

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Storage/Stability

It is soluble in absolute ethanol (1 mg/ml). It can be further diluted into aqueous solutions. Stock solutions in ethanol can be frozen in aliquots.

References

1. Li, Q., et al., J. Biol. Chem., **271**, 19651 (1996).
2. Holt, I., et al., Prostaglandin E₂ stimulates the Production of Interleukin-6 by Neonatal Mouse Parietal Bones. Bone Miner., **25(1)**, 47-57 (1994).
3. Coelho, M. M., et al., Dexamethasone Inhibits the Pyrogenic Activity of Prostaglandin F_{2α1}, but not Prostaglandin E₂. Eur. J. Pharmacol., **238(2-3)**, 391-394 (1993).

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