



Catalog # 10-1358

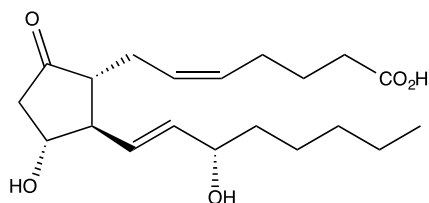
Prostaglandin E2

CAS# 363-24-6

(5Z,11α,13E,15S)-11,15-Dihydroxy-9-oxoprostano-5,13-dienoic acid

Dinoprost

Lot # X101708



Prostaglandin E2 (PGE2) is an endogenous prostaglandin derived from the action of cyclooxygenase on arachidonic acid. PGE2 has diverse biological actions in the areas of inflammation, cancer, immune modulation, fertility, smooth muscle relaxation and hematopoietic stem cell homeostasis. PGE2 acts through four distinct receptors: EP₁, EP₂, EP₃, EP₄.

- 1) Healy (1990) *Progesterone receptor antagonist and prostaglandins in human fertility regulation: a clinical review* Reprod.Fertil.Dev. **2** 477
- 2) Greenhough *et al.* (2009) *The COX-2/PGE2 pathway: key roles in the hallmarks of cancer and adaptation to the tumour microenvironment* Carcinogenesis **30** 377
- 3) Kalinski (2012) *Regulation of Immune Responses by Prostaglandin E2* J.Immunol. **188** 21
- 4) North *et al.* (2007) *Prostaglandin E2 regulates vertebrate haematopoietic stem cell homeostasis*. Nature **447** 1007
- 5) Hoggatt *et al.* (2013) *Differential stem- and progenitor-cell trafficking by prostaglandin E2* Nature **495** 365
- 6) Coleman *et al.* (1994) *Classification of prostanoid receptors: Properties, distribution and structure of the receptors and their subtypes* Pharmacol.Rev. **46** 205

PHYSICAL DATA

Molecular Weight:	352.47
Molecular Formula:	C ₂₀ H ₃₂ O ₅
Purity:	>98% (TLC)
Solubility:	DMSO (> 25 mg/ml) or ethanol (>25 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied at -20°C for up to one year from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 3 months. May be diluted further into neutral aqueous media – acidic or basic media will cause decomposition to PGA2 and PGB2. Make aqueous solutions fresh daily - do not store.

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