

Product Name: Prostaglandin E₂

Catalog No.: 2296

Batch No.: 9

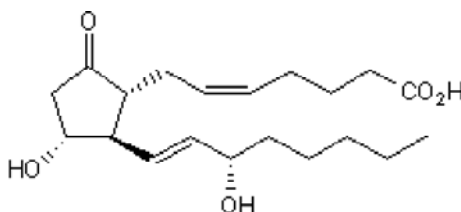
CAS Number: 363-24-6

EC Number: 206-656-6

IUPAC Name: (5Z,11α,13E,15S)-11,15-Dihydroxy-9-oxo-prosta-5,13-dien-1oic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₀H₃₂O₅
Batch Molecular Weight: 352.47
Physical Appearance: White solid
Solubility: DMSO to 100 mM
 ethanol to 45 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.1% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	68.15	9.15	
Found	67.97	9.4	

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Prostaglandin E₂ is an endogenous prostaglandin and primary product of arachidonic acid/cyclooxygenase pathway. Binds with high affinity to EP₁, EP₂, EP₃ and EP₄ receptors (K_d values range between ~ 1 - 10 nM). Influences a wide range of processes including inflammation, smooth muscle relaxation, fertility and gastric mucosal integrity. Regulates vertebrate hematopoietic stem cell (HSC) homeostasis. Acts as viral transduction enhancer.

Physical and Chemical Properties:

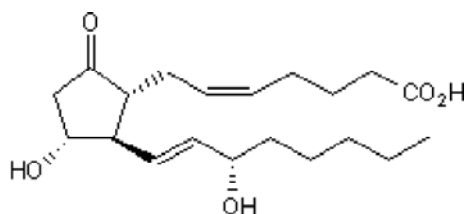
Batch Molecular Formula: C₂₀H₃₂O₅

Batch Molecular Weight: 352.47

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



References:

Heffner et al (2018) Prostaglandin E₂ increases lentiviral vector transduction efficiency of adult human hematopoietic stem and progenitor cells. *Mol. Ther* **26** 320. PMID: 29102562.

Sato et al (2015) SnapShot: Growing organoids from stem cells. *Cell*. **161** 1700. PMID: 26091044.

Karthaus et al (2014) Identification of multipotent luminal progenitor cells in human prostate organoid cultures. *Cell*. **159** 163. PMID: 25201529.

Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 45 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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