

Product Name: Prostaglandin F_{2α}

Catalog No.: 4214

Batch No.: 2

CAS Number: 38562-01-5

EC Number: 254-002-3

IUPAC Name: 9α,11α,15S-Trihydroxy-prosta-5Z,13E-dien-1-oic acid tris(hydroxymethyl)aminomethane salt

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₀H₃₄O₅.C₄H₁₁NO₃

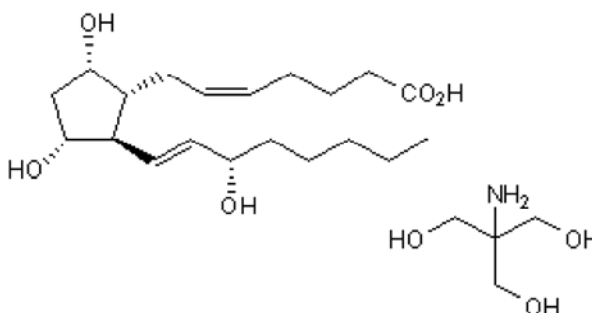
Batch Molecular Weight: 475.62

Physical Appearance: White solid

Solubility: DMSO to 100 mM
ethanol to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 100% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon Hydrogen Nitrogen		
Theoretical	60.61	9.54	2.94
Found	60.59	9.69	2.98

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Description:

Prostaglandin E₂ and F_{2α} receptor agonist. Naturally-occurring prostaglandin and potent vasoconstrictor. Induces cardiomyocyte hypertrophy in vitro. Exhibits luteolytic activity.

Physical and Chemical Properties:

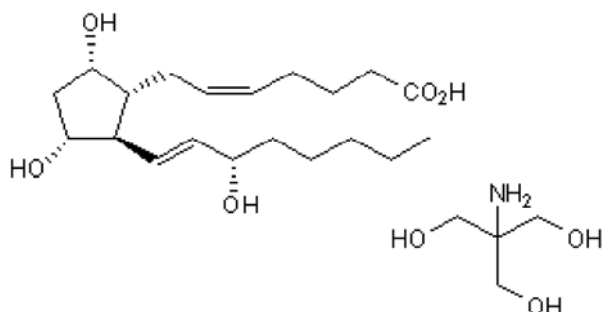
Batch Molecular Formula: C₂₀H₃₄O₅.C₄H₁₁NO₃

Batch Molecular Weight: 475.62

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 100 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.

References:

Girsh and Dekel (2002) Involvement of endothelin-1 and its receptors in PGF_{2α}-induced luteolysis in the rat. *Mol.Reprod.Dev.* **63** 71. PMID: 12211063.

Lai et al (1996) Prostaglandin F₂ alpha induces cardiac myocyte hypertrophy in vitro and cardiac growth in vivo. *Am.J.Physiol.* **271** 2197.

Samuelsson et al (1978) Prostaglandins and thromboxanes. *Annu.Rev.Biochem.* **47** 997. PMID: 209733.

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