Certificate of Analysis

Product Name: **Prostaglandin E_2** **Catalog No.: 2296** **Batch No.: 12**

CAS Number: 363-24-6 EC Number: 206-656-6

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

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{20}H_{32}O_5$.

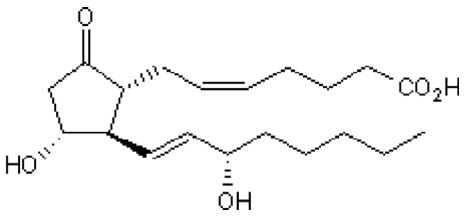
Batch Molecular Weight: 352.47

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 99.5% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	68.15	9.15	0
Found	68.48	9.07	0

bio-techne.com
info@bio-techne.com
techsupport@bio-techne.com

North America
Tel: (800) 343 7475

China
info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa
Tel: +44 (0)1235 529449

Rest of World
www.tocris.com/distributors
Tel:+1 612 379 2956

Product Name: **Prostaglandin E_2**

Catalog No.: 2296 **12**

CAS Number: 363-24-6

EC Number: 206-656-6

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

Description:

Prostaglandin E_2 is an endogenous prostaglandin and primary product of arachidonic acid/cyclooxygenase pathway. Prostaglandin E_2 binds with high affinity to EP_1, EP_2, EP_3 and EP_4 receptors (K_d values range between ~ 1 - 10 nM). Prostaglandin E_2 influences a wide range of processes including inflammation, vasodilation, smooth muscle relaxation, fertility, gastric mucosal integrity and platelet aggregation. Prostaglandin E_2 regulates vertebrate hematopoietic stem cell (HSC) homeostasis, acts as viral transduction enhancer and is tumorigenic in some cancers. Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

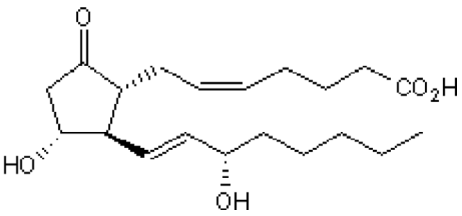
Batch Molecular Formula: $C_{20}H_{32}O_5$.

Batch Molecular Weight: 352.47

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

Heffner *et al* (2018) Prostaglandin E_2 increases lentiviral vector transduction efficiency of adult human hematopoietic stem and progenitor cells. Mol.Ther ***26*** 320. PMID: 29102562.

Ke *et al* (2016) Prostaglandin E2 (PGE2) promotes proliferation and invasion by enhancing SUMO-1 activity via EP4 receptor in endometrial cancer. Tumour Biol. ***37*** 12203. PMID: 27230680.

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