bio-techne
TOCRIS

Print Date: Feb 29th 2024

Certificate of Analysis

www.tocris.com

Product Name: **16,16-Dimethyl Prostaglandin E2** **Catalog No.: 4027** **Batch No.: 9**

CAS Number: 39746-25-3

IUPAC Name: (5*Z*,11α,13*E*,15*R*)-11,15-Dihydroxy-16,16-dimethyl-9-oxo-prosta-5,13-dien-1oic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{22}H_{36}O_5$

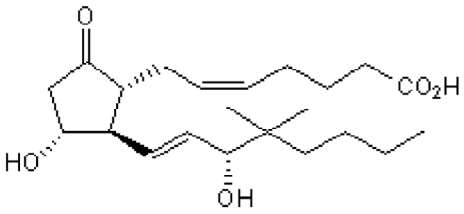
Batch Molecular Weight: 380.52

Physical Appearance: liquid

Solubility: Soluble in methyl acetate (supplied pre-dissolved -10mg/ml)

Storage: Store at -80°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 95.4% purity

Mass Spectrum: Consistent with structure

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

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: 16,16-Dimethyl Prostaglandin E2 **Catalog No.:** 4027 **9**

CAS Number: 39746-25-3

IUPAC Name: (5*Z*,11α,13*E*,15*R*)-11,15-Dihydroxy-16,16-dimethyl-9-oxo-prosta-5,13-dien-1oic acid

Description:

16,16-Dimethyl Prostaglandin E2 is a synthetic derivative of prostaglandin E_2 (Cat. No. 2296). Increases embryonic stem cell (ESC) hematopoietic colony formation in mouse bone marrow. Also induces an increase in hematopoietic stem cell (HSC) numbers and enhances Wnt activity within the HSC population in zebrafish embryos.

Physical and Chemical Properties:

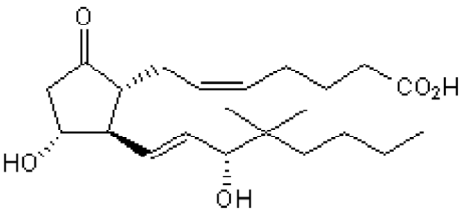
Batch Molecular Formula: $C_{22}H_{36}O_5$

Batch Molecular Weight: 380.52

Physical Appearance: liquid

Minimum Purity: ≥95%

Batch Molecular Structure:



Storage: Store at -80°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:

Soluble in methyl acetate (supplied pre-dissolved -10mg/ml)

This compound is supplied pre-dissolved in Methyl acetate (10mg/ml). To change the solvent, evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the chosen solvent (preferably purged with nitrogen beforehand). The solubility of 16,16-Dimethyl-PGE2 is greater than 100mM in both DMSO and Ethanol, and about 10mM in PBS. Solutions in DMSO and Ethanol can be kept at -80°C for at least 6 months. Use aqueous solutions within 12 hours.

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 .

Goessling *et al* (2009) Genetic interaction of PGE_2 and wnt signaling regulates developmental specification of stem cells and regeneration. Cell. ***136*** 1136. PMID: 19303855.

Lord *et al* (2007) Prostaglandin E_2: making more of your marrow. Cell Cycle. ***6*** 3054. PMID: 18075310.