

**Product Name:** Misoprostol

**Catalog No.:** 2297

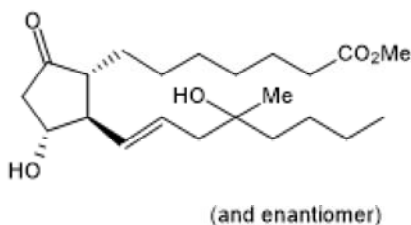
**Batch No.:** 2

CAS Number: 59122-46-2

IUPAC Name: (±)-(11a,13E)-11,16-Dihydroxy-16-methyl-9-oxo-prost-13-en-1-oic acid methyl ester

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>22</sub>H<sub>38</sub>O<sub>5</sub>  
**Batch Molecular Weight:** 382.53  
**Physical Appearance:** Colourless oil  
**Solubility:** ethanol to 100 mM  
DMSO to 100 mM  
**Storage:** Desiccate at -20°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 100% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

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

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**Description:**

Cytoprotective prostaglandin E<sub>1</sub> analog that displays agonist activity at EP receptors. K<sub>i</sub> values are 120, 250, 67 and 67 nM at cloned mouse EP<sub>1</sub>, EP<sub>2</sub>, EP<sub>3</sub> and EP<sub>4</sub> receptors respectively. Prevents NSAID-induced gastric ulceration.

**Physical and Chemical Properties:**

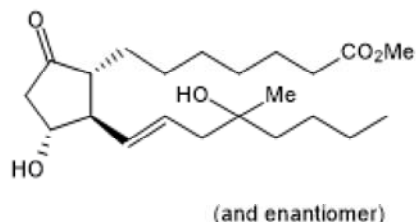
Batch Molecular Formula: C<sub>22</sub>H<sub>38</sub>O<sub>5</sub>

Batch Molecular Weight: 382.53

Physical Appearance: Colourless oil

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Desiccate at -20°C

**Solubility & Usage Info:**

ethanol to 100 mM

DMSO to 100 mM

Aqueous solutions of this product should be stored on ice and used within 12 hours of preparation.

**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:**

**Kiriyama et al** (1997) Ligand binding specificities of the eight types and subtypes of the mouse prostanoid receptors expressed in Chinese hamster ovary cells. *Br.J.Pharmacol.* **122** 217. PMID: 9313928.

**Smith et al** (1994) Characterization of dilator prostanoid receptors in the fetal rabbit ductus arteriosus. *J.Pharmacol.Exp.Ther.* **271** 390. PMID: 7965740.

**Graham et al** (1988) Prevention of NSAID-induced gastric ulcer with misoprostol: multicentre, double-blind, placebo-controlled trial. *Lancet* **2** 1277. PMID: 2904006.

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