## Product Information

### Prostaglandin E<sub>2</sub> Lipid Maps MS Standard

**Catalog No. 10007211**

*Sold under license from Lipid Maps*

<table>
<thead>
<tr>
<th>CAS Registry No.:</th>
<th>363-24-6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal Name:</td>
<td>9-oxo-11α,15S-dihydroxy-prosta-5Z,13E-dien-1-oic acid</td>
</tr>
<tr>
<td>Synonyms:</td>
<td>Dinoprostone, PGE&lt;sub&gt;2&lt;/sub&gt;</td>
</tr>
<tr>
<td>MF:</td>
<td>C&lt;sub&gt;20&lt;/sub&gt;H&lt;sub&gt;28&lt;/sub&gt;O&lt;sub&gt;3&lt;/sub&gt;</td>
</tr>
<tr>
<td>FW:</td>
<td>352.5</td>
</tr>
<tr>
<td>Purity:</td>
<td>≥99%</td>
</tr>
<tr>
<td>Stability:</td>
<td>≥2 years at -20°C</td>
</tr>
<tr>
<td>Supplied as:</td>
<td>A crystalline solid</td>
</tr>
</tbody>
</table>

### Laboratory Procedures

For long term storage, we suggest that prostaglandin E<sub>2</sub> (PGE<sub>2</sub>) be stored as supplied at -20°C. It will be stable for at least two years.

PGE<sub>2</sub> is supplied as a crystalline solid. A stock solution of PGE<sub>2</sub> can be prepared by dissolving the crystalline compound in an organic solvent. Solvents such as ethanol, DMSO, or dimethyl formamide may be used. The solubility of PGE<sub>2</sub> in these solvents is approximately 100 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Avoid adding PGE<sub>2</sub> to basic solutions (pH > 7.4), since base treatment will degrade the PGE<sub>2</sub> to PGA and PGB compounds. Also, ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of PGE<sub>2</sub> is needed, it can be prepared by dissolving the crystalline compound in a neutral aqueous solution. PGE<sub>2</sub> is directly soluble in PBS (pH 7.2) at a concentration of approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

PGE<sub>2</sub> is one of the primary cyclooxygenase products of arachidonic acid and one of the most widely investigated PGs. Its activity influences inflammation, fertility and parturition, gastric mucosal integrity, and immune modulation. The effects of PGE<sub>2</sub> are transduced by at least four distinct receptors designated EP<sub>1</sub>, EP<sub>2</sub>, EP<sub>3</sub>, and EP<sub>4</sub>. 5 Affinity constants (K<sub>i</sub>) of PGE<sub>2</sub> for these receptors range from 1-10 nM depending on the receptor subtype and tissue.

### References


### Related Products

- Prostaglandin E<sub>2</sub> sodium - Cat. No. 10193
- tert-butyl-PGDM - Cat. No. 12850
- Prostaglandin E<sub>2</sub> methyl ester - Cat. No. 14080
- Prostaglandin E<sub>2</sub> methyl ester - Cat. No. 14010
- Prostaglandin E<sub>2</sub> ethyl ester - Cat. No. 14011
- 5-trans Prostaglandin E<sub>2</sub> - Cat. No. 14210
- 8-oxy Prostaglandin E<sub>2</sub>, isopropyl ester - Cat. No. 14352
- 9-deoxy-9-methylene-16,16-dimethyl Prostaglandin E<sub>2</sub> - Cat. No. 14420
- 11β-Prostaglandin E<sub>2</sub> - Cat. No. 14510
- 11-deoxy-16,16-dimethyl Prostaglandin E<sub>2</sub> - Cat. No. 14500
- 15(S)-15-methyl Prostaglandin E<sub>2</sub> - Cat. No. 14730
- 11-deoxy Prostaglandin E<sub>2</sub> - Cat. No. 14520
- 15(R)-Prostaglandin E<sub>2</sub> - Cat. No. 14710
- 15(R)-15-methyl Prostaglandin E<sub>2</sub> - Cat. No. 14720
- 16-phenony tertar Prostaglandin E<sub>2</sub> - Cat. No. 14760
- Sulprostone - Cat. No. 14765
- 16-phenyl tertar Prostaglandin E<sub>2</sub> - Cat. No. 14770
- 20-ethyl Prostaglandin E<sub>2</sub> - Cat. No. 14940
- Prostaglandin E<sub>2</sub>, d<sub>4</sub> - Cat. No. 314010
- 13,14-dihydro Prostaglandin E<sub>2</sub>, d<sub>4</sub> - Cat. No. 9000281
- 13,14-dihydro-15- keto Prostaglandin E<sub>2</sub>, d<sub>4</sub> - Cat. No. 9000288
- Prostaglandin E<sub>2</sub>, Quant-PAK - Cat. No. 10006846
- Prostaglandin E<sub>2</sub>, bisimidazole - Cat. No. 10006987
- exo-Prostaglandin E<sub>2</sub>, Cat. No. 10008249

### WARNING:

**This product is for laboratory research only; not for administration to humans. Not for human or veterinary diagnostic or therapeutic use.**

### MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow or inhale. Do not get in eyes, on skin or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent under separate cover to the MSDS supervisor at your institution.

### WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes no warranty or guarantee of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals herof. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have any obligation or liability, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer’s exclusive remedy and Cayman’s sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman’s option, the replacement, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.

Cayman Chemical Company, 11/05/2008