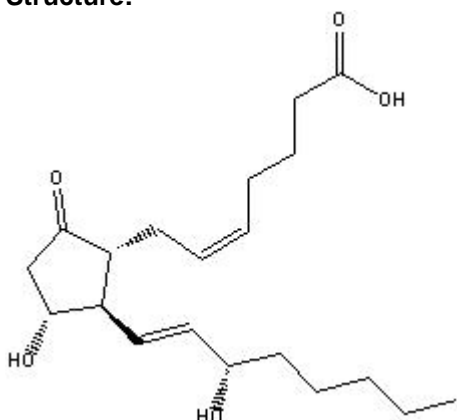


## TECHNICAL INFORMATION

Catalog Number: 194576

**Prostaglandin E<sub>2</sub>, cell culture reagent, gamma-Irradiated**

**Structure:**



**Molecular Formula:** C<sub>20</sub>H<sub>32</sub>O<sub>5</sub>

**Formula Weight:** 352.5

**CAS # :** 363-24-6

**Synonyms:** Dinoprostone; (5Z, 11a, 13E, 15S)-11,15-dihydroxy-9-oxo-Prosta-5,13-dien-1-oic acid; PGE<sub>2</sub>

**Description:** PGE<sub>2</sub> is one of the primary cyclooxygenase products of arachidonic acid and one of the most widely investigated prostaglandins. Its activity influences inflammation, fertility and parturition, gastric mucosal integrity, and immune modulation.<sup>1-4</sup> 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>.<sup>5</sup> Affinity constants (K<sub>d</sub>) of PGE<sub>2</sub> for these receptors range from 1-10 nM depending on the receptor subtype and tissue.

**Recommend Storage:** -20°C

**Source:** Synthetic

**Solubility:** Sparingly soluble in water but freely soluble in organic solvents such as ethanol, methanol, acetone, acetonitrile, or DMSO. The solubility of PGE<sub>2</sub> in these solvents is at least 10 mg/ml. It is stable for at least 1 month in these solvents if stored at -20°C. 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. We do not recommend storing the aqueous solution for more than one day.

**References:**

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