

# Product Information



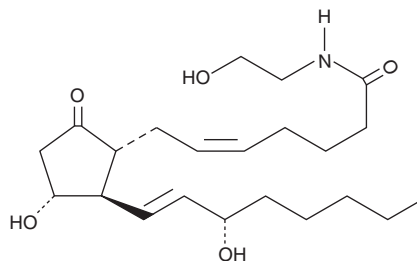
## Prostaglandin E<sub>2</sub> Ethanolamide Lipid Maps MS Standard

Catalog No. 10007212

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**CAS Registry No.:** 194935-38-1  
**Formal Name:** N-(2-hydroxyethyl)-9-oxo-11 $\alpha$ ,15S-dihydroxy-prosta-5Z,13E-dien-1-amide  
**Synonyms:** Dinoprostone Ethanolamide, PGE<sub>2</sub>-EA, Prostamide E<sub>2</sub>  
**MF:** C<sub>22</sub>H<sub>37</sub>NO<sub>5</sub>  
**FW:** 395.5  
**Purity:**  $\geq$ 98%  
**Stability:**  $\geq$ 1 year at -20°C  
**Supplied as:** A crystalline solid



### Laboratory Procedures

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

PGE<sub>2</sub>-EA is supplied as a crystalline solid. A stock solution may be made by dissolving the PGE<sub>2</sub>-EA in an organic solvent purged with an inert gas. PGE<sub>2</sub>-EA is soluble in organic solvents such as ethanol, DMSO, or dimethyl formamide. The solubility of PGE<sub>2</sub> ethanolamide 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. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of PGE<sub>2</sub>-EA can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of PGE<sub>2</sub>-EA in PBS (pH 7.2) is approximately 12 mg/ml. We do not recommend storing the aqueous solution for more than one day.

PGE<sub>2</sub>-EA is an analog of PGE<sub>2</sub> with improved water solubility and stability. PGE<sub>2</sub>-EA acts as an agonist with all four known EP receptor subtypes, but with an affinity that is significantly reduced compare to PGE<sub>2</sub>.<sup>1</sup> PGE<sub>2</sub>-EA is produced by HCA-7 cells treated with arachidonoyl ethanolamide (AEA).<sup>2</sup> The physiologic relevance of PGE<sub>2</sub>-EA is not yet established.

### References

1. Ross, R.A., Craib, S.J., Stevenson, L.A., *et al.* Pharmacological characterization of the anandamide cyclooxygenase metabolite: prostaglandin E<sub>2</sub> ethanolamide. *J. Phar. Exp. Ther.* **301(3)**, 900-907 (2002).
2. Kozak, K.R., Crews, B.C., Morrow, J.D., *et al.* Metabolism of the endocannabinoids, 2-arachidonylglycerol and anandamide, into prostaglandin, thromboxane, and prostacyclin glycerol esters and ethanolamides. *J. Biol. Chem.* **277(47)**, 44877-44885 (2002).

### Related Products

Prostaglandin E<sub>2</sub> serinol amide - Cat. No. 10193 • Prostaglandin D<sub>2</sub> Ethanolamide - Cat. No. 12012 • Prostaglandin E<sub>1</sub> Ethanolamide - Cat. No. 13012 • Prostaglandin E<sub>2</sub> - Cat. No. 14010 • Prostaglandin E<sub>2</sub> Ethanolamide - Cat. No. 14012 • 13,14-dihydro-15-keto Prostaglandin E<sub>2</sub> Ethanolamide - Cat. No. 14652 • Prostaglandin F<sub>2 $\alpha$</sub>  Ethanolamide - Cat. No. 16013 • Leukotriene B<sub>4</sub> Ethanolamide - Cat. No. 20112 • Arachidonic Acid - Cat. No. 90010 • Arachidonoyl Ethanolamide - Cat. No. 90050

**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.

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