

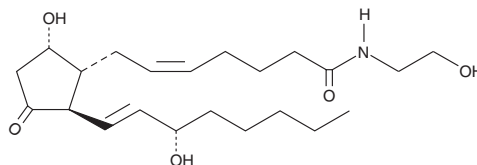
# Product Information



## Prostaglandin D<sub>2</sub> Ethanolamide

Catalog No. 12012

**Formal Name:** N-(2-hydroxyethyl)-11-oxo-9 $\alpha$ ,15S-dihydroxy-prosta-5Z,13E-dien-1-amide  
**Synonym:** PGD<sub>2</sub>-EA  
**MF:** C<sub>22</sub>H<sub>37</sub>NO<sub>5</sub>  
**FW:** 395.5  
**Purity:** ≥96%  
**Stability:** ≥1 year at -20°C  
**Supplied as:** A solution in ethanol



### Laboratory Procedures

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

PGD<sub>2</sub>-EA is supplied as a solution in ethanol. To change the solvent, simply evaporate the PGD<sub>2</sub>-EA under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of PGD<sub>2</sub>-EA in these solvents is approximately 8 mg/ml. PGD<sub>2</sub>-EA is stable for at least six months 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. 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 PGD<sub>2</sub>-EA is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of PGD<sub>2</sub>-EA in PBS (pH 7.2) is approximately 2.5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Anandamide (AEA) is a substrate for cyclooxygenase and the conversion of this fatty acid amide to PGE<sub>2</sub> compounds has been demonstrated *in vitro*.<sup>1</sup> Conversion into any of the other primary PGs is also theoretically possible. In addition, these compounds are interesting analogs of the parent PG and may have useful pharmacologic uses. PGD<sub>2</sub>-EA is one of these analogs.

### Reference

1. Yu, M., Ives, D., and Ramesha, C.S. Synthesis of prostaglandin E<sub>2</sub> ethanolamide from anandamide by cyclooxygenase-2. *J. Biol. Chem.* **272**, 21181-21186 (1997).

### Related Products

Prostaglandin D<sub>2</sub> - Cat. No. 12010 • Prostaglandin E<sub>1</sub> Ethanolamide - Cat. No. 13012 • Prostaglandin E<sub>2</sub> Ethanolamide - Cat. No. 14012 • Arachidonyl 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 MSD supervisor at your institution.

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