

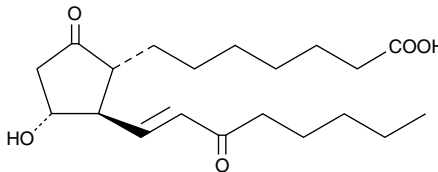
# Product Information



## 15-keto Prostaglandin E<sub>1</sub>

Item No. 13680

**CAS Registry No.:** 22973-19-9  
**Formal Name:** 9,15-dioxo-11 $\alpha$ -hydroxy-prost-13E-en-1-oic acid  
**Synonym:** 15-keto PGE<sub>1</sub>  
**MF:** C<sub>20</sub>H<sub>32</sub>O<sub>5</sub>  
**FW:** 352.5  
**Purity:**  $\geq$ 98%  
**Stability:**  $\geq$ 2 years at -20°C  
**Supplied as:** A solution in methyl acetate  
**UV/Vis.:**  $\lambda_{\max}$ : 229 nm



### Laboratory Procedures

15-keto Prostaglandin E<sub>1</sub> (15-keto PGE<sub>1</sub>) is a metabolite of PGE<sub>1</sub>. For long term storage, we suggest that 15-keto PGE<sub>1</sub> be stored as supplied at -20°C. It should be stable for at least two years.

15-keto PGE<sub>1</sub> is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, or dimethyl formamide purged with an inert gas can be used. The solubility of 15-keto PGE<sub>1</sub> in these solvents is approximately 50 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. If an organic solvent-free aqueous solution of 15-keto PGE<sub>1</sub> is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of 15-keto PGE<sub>1</sub> in PBS (pH 7.2) is approximately 1.6 mg/ml. Store aqueous solutions of 15-keto PGE<sub>1</sub> on ice and use within 12 hours of preparation. Although the aqueous solutions of 15-keto PGE<sub>1</sub> may be stable for more than 12 hours, we strongly recommend using a fresh preparation each day.

15-keto PGE<sub>1</sub> is the inactive oxidation product of PGE<sub>1</sub>. It is ineffective at inhibiting ADP-induced platelet aggregation in both rabbit and human.<sup>1</sup> It has only a negligible effect on the stimulation of rabbit duodenum, guinea pig ileum, and guinea pig uterus.<sup>2</sup> 15-keto PGE<sub>1</sub> also has little effect on decreasing rabbit and guinea pig blood pressure.<sup>2</sup>

### References

- Westwick, J. The effect of pulmonary metabolites of prostaglandins E<sub>1</sub>, E<sub>2</sub> and F<sub>2 $\alpha$</sub>  on ADP-induced aggregation of human and rabbit platelets. *Br. J. Pharmacol.* **58**, 297P-298P (1976).
- Änggård, E. The biological activities of three metabolites of prostaglandin E<sub>1</sub>. *Acta Physiol. Scand.* **66**, 509-510 (1966).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/13680](http://www.caymanchem.com/catalog/13680)

**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY. NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

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