

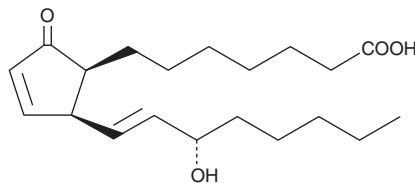
# PRODUCT INFORMATION



## 8-iso Prostaglandin A<sub>1</sub>

Item No. 10035

**CAS Registry No.:** 211186-29-7  
**Formal Name:** (8β)-15S-hydroxy-9-oxo-prosta-10,13E-dien-1-oic acid  
**Synonyms:** 8-*epi* PGA<sub>1</sub>, 8-*iso* PGA<sub>1</sub>  
**MF:** C<sub>20</sub>H<sub>32</sub>O<sub>4</sub>  
**FW:** 336.5  
**Purity:** ≥97%  
**UV/Vis.:** λ<sub>max</sub>: 217 nm  
**Supplied as:** A solution in methyl acetate  
**Storage:** -20°C  
**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

8-*iso* Prostaglandin A<sub>1</sub> (8-*iso* PGA<sub>1</sub>) is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the 8-*iso* PGA<sub>1</sub> 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 8-*iso* PGA<sub>1</sub> in these solvents is approximately 100, 50, and 75, respectively.

8-*iso* PGA<sub>1</sub> is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of 8-*iso* PGA<sub>1</sub> should be diluted with the aqueous buffer of choice. The solubility of 8-*iso* PGA<sub>1</sub> in PBS (pH 7.2) is approximately 2.4 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

8-*iso* PGA<sub>1</sub> is an isoprostane. It inhibits aldo-keto reductase family 1 member B10 (AKR1B10) in COS-7 lysates expressing the human enzyme when used at a concentration of 60 μM.<sup>1</sup> 8-*iso* PGA<sub>1</sub> (0.1 μM) inhibits potassium-induced D-aspartate release from isolated bovine retinas.<sup>2</sup>

### References

1. Díaz-Dacal, B., Gayarre, J., Gharbi, S., *et al.* Identification of aldo-keto reductase AKR1B10 as a selective target for modification and inhibition by prostaglandin A<sub>1</sub>: Implications for antitumoral activity. *Cancer Res.* **71**(12), 4161-4171 (2011).
2. Opere, C.A., Zheng, W.D., Huang, J., *et al.* Dual effect of isoprostanes on the release of [<sup>3</sup>H]D-aspartate from isolated bovine retinæ: Role of arachidonic acid metabolites. *Neurochem. Res.* **30**(1), 129-137 (2005).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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