

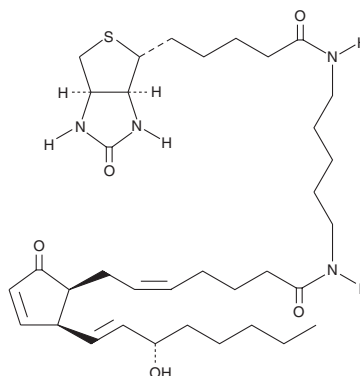
# Product Information



## 8-*iso* Prostaglandin A<sub>2</sub>-biotin

Item No. 10010500

**Formal Name:** 9-oxo-15S-hydroxy-(8β)-prosta-5Z,10,13E-trien-1-oyl-N'-biotinoyl-1,5-diaminopentane  
**Synonym:** 8-*iso* PGA<sub>2</sub>-biotin  
**MF:** C<sub>35</sub>H<sub>56</sub>N<sub>4</sub>O<sub>5</sub>S  
**FW:** 644.9  
**Purity:** ≥95%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A solution in ethanol



### Laboratory Procedures

For long term storage, we suggest that 8-*iso* prostaglandin A<sub>2</sub>-biotin (8-*iso* PGA<sub>2</sub>-biotin) be stored as supplied at -20°C. It should be stable for at least two years.

8-*iso* PGA<sub>2</sub>-biotin is supplied as a solution in ethanol. If aqueous stock solutions are required for biological experiments, they can best be prepared by diluting the organic solvent into aqueous buffers or isotonic saline. 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.

Isoprostanes are PG-like compounds produced *in vivo* by free radical-catalyzed peroxidation of arachidonoyl-containing lipids. 8-*iso* PGA<sub>2</sub> is one of several isoprostanes produced, *in vivo*, from peroxidation of arachidonic acid esterified in phospholipids.<sup>1,2</sup> 8-*iso* PGA<sub>2</sub>-biotin is an affinity probe which allows 8-*iso* PGA<sub>2</sub> to be detected through an interaction with the biotin ligand. Biotinylated eicosanoids have been used to capture proteins which interact with the lipid.<sup>3</sup>

### References

1. Morrow, J.D., Minton, T.A., Mukundan, C.R., *et al.* Free radical-induced generation of isoprostanes *in vivo*. Evidence for the formation of D-ring and E-ring isoprostanes. *J. Biol. Chem.* **269**, 4317-4326 (1994).
2. Chen, Y., Zackert, W.E., Robers, L.J., II, *et al.* Evidence for the formation of a novel cyclopentenone isoprostane, 15-A<sub>2t</sub>-isoprostane (8-*iso*-prostaglandin A<sub>2</sub>) *in vivo*. *Biochem. Biophys. Acta* **1436**, 550-556 (1999).
3. Kang, L.-T. and Vanderhoek, J.Y. Synthesis and use of a novel biotinylated probe for the chemiluminescent detection of proteins that bind 15-hydroxyeicosatetraenoic acid. *Anal. Biochem.* **250**, 119-122 (1997).

### Related Products

8-*iso* Prostaglandin A<sub>2</sub> - Item No. 10235 • Prostaglandin A<sub>2</sub>-biotin - Item No. 10010499

**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 via email to your institution.

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