

# Product Information



## Prostaglandin I Synthase Blocking Peptide

Catalog No. 360640

Prostaglandin I Synthase (PGIS) catalyzes the isomerization of PGH<sub>2</sub> to PGI<sub>2</sub>. PGIS is a membrane-bound hemoprotein localized primarily in endothelial cells.<sup>1</sup> The cloned bovine and human enzymes contain 500 amino acids and have a calculated molecular mass of 56,629 and 57,103, respectively.<sup>2-4</sup>

### Laboratory Procedures

This vial contains 200 µg of lyophilized peptide derived from the bovine Prostaglandin I Synthase (PGIS) sequence (bovine amino acids 299-329; LLKNPEALAAVRGELETVLLGAEQPISQMTT).<sup>2-4</sup> This peptide was used as an antigen for production of the PGIS Polyclonal Antibody (Catalog No. 160640) and can be used in conjunction with this antiserum to block protein-antibody complex formation during immunochemical analysis for the PGIS.

Reconstitute the lyophilized peptide with 200 µl of PBS or distilled water. Store this peptide solution at -20°C. It will be stable for at least two years. To block antibody/protein complex formation, the following procedure is recommended:

1. Mix the PGIS Polyclonal Antibody (Catalog No. 160640) and blocking peptide together in a 1:1 (v/v) ratio in a microfuge tube. For example, mix 20 µl of antibody and 20 µl of peptide.\*
2. Incubate for 1 hour at room temperature with occasional mixing prior to further dilution and application of the mixture to the immunoblot.
3. Dilute the mixture to the final working antibody concentration and apply to the slide or membrane as usual.

\*This is a recommended mixture. The minimum amount of peptide needed for complete blocking has not been precisely determined and may vary depending on the sample being analyzed. The amount of peptide required may need to be increased if sufficient blocking does not occur.

### References

1. DeWitt, D.L. and Smith, W.L. Purification of prostacyclin synthase from bovine aorta by immunoaffinity chromatography. Evidence that the enzyme is a hemoprotein. *J. Biol. Chem.* **258**, 3285-3293 (1983).
2. Pereira, B., Wu, K.K., and Wang, L.-H. Molecular cloning and characterization of bovine prostacyclin synthase. *Biochem. Biophys. Res. Commun.* **203**, 59-66 (1994).
3. Miyata, A., Hara, S., Yokoyama, C., *et al.* Molecular cloning and expression of human prostacyclin synthase. *Biochem. Biophys. Res. Commun.* **200**, 1728-1734 (1994).
4. Hara, S., Miyata, A., Yokoyama, C., *et al.* Isolation and molecular cloning of prostacyclin synthase from bovine endothelial cells. *J. Biol. Chem.* **269**, 19897-19903 (1994).

### Related Product

Prostaglandin I Synthase Polyclonal Antibody - Cat. No. 160640

**WARNING: THIS PRODUCT IS NOT INTENDED OR APPROVED FOR HUMAN OR VETERINARY USE. USE OF THIS PRODUCT FOR HUMAN OR ANIMAL TESTING IS EXTREMELY HAZARDOUS AND MAY RESULT IN DISEASE, SEVERE INJURY, OR DEATH.**

#### 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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