

Product Information



Prostaglandin I Synthase Monoclonal Antibody (Clone isn-1)

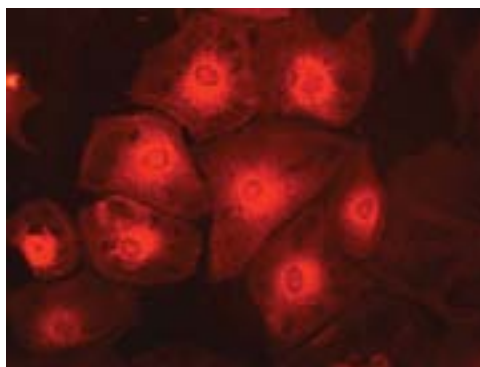
Item No. 160630 • Lot No. XXXXXX

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|--------------------------|--|
| Synonyms: | PGIS, Prostacyclin Synthase |
| Contents: | This vial contains 250 µg IgG lyophilized. |
| Host: | Mouse |
| Antigen: | This antibody was raised against bovine lung prostaglandin I synthase (PGIS). ¹ |
| Cross-reactivity: | (+) Bovine, mouse, rat, ovine, guinea pig, and rabbit PGI synthase |
| Purity: | Protein-A purified |
| Stability: | ≥5 years at -20°C |
| Applications: | Immunoprecipitation (2.5 µg/ml) and immunohistochemistry (5 µg/ml); Western blot not recommended |

Laboratory Procedures

This vial contains 250 µg purified IgG against bovine PGIS. For long term storage, we suggest the antibody be stored as supplied at 4°C; it will be stable for at least five years. The working concentration of the antibody must be determined empirically.

PGIS catalyzes the conversion of PGH₂ to PGI₂ (prostacyclin). Human lung PGI synthase is a 56 kDa protein. The cloned bovine and human enzymes contain 500 amino acids and have a calculated molecular mass of 56,629 and 57,103, respectively.²⁻⁴ There is 88% homology between human and bovine PGIS.



Bovine CPAE cells stained with Item No. 160630: Prostaglandin I Synthase Monoclonal Antibody (Clone Isn-1), at 15 µg/ml followed by goat anti-mouse IgG (Cy3) conjugate.

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. Miyata, A., Hara, S., Yokoyama, C., *et al.* Molecular cloning and expression of human prostacyclin synthase. *Biochem. Biophys. Res. Commun.* **200**, 1728-1734 (1994).
3. Pereira, B., Wu, K.K., and Wang, L. Molecular cloning and characterization of bovine prostacyclin synthase. *Biochem. Biophys. Res. Commun.* **203**, 59-66 (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).
5. Zou, M.-H., Shi, C., and Cohen, R.A. High glucose *via* peroxynitrite causes tyrosine nitration and inactivation of prostacyclin synthase that is associated with thromboxane/prostaglandin H₂ receptor-mediated apoptosis and adhesion molecule expression in cultured human aortic endothelial cells. *Diabetes* **51**, 198-203 (2002).

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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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