

Product Information



IP Receptor (murine) Polyclonal Antibody

Item No. 160070

- Synonyms:** PGI₂ Receptor; Prostacyclin Receptor; Prostaglandin I₂ Receptor
- Contents:** This vial contains 200 µg of peptide affinity-purified IgG in 200 µl TBS, pH 7.4, containing 50% glycerol, 0.1% BSA, and 0.02% sodium azide
- Host:** Rabbit
- Antigen:** Mouse IP receptor N-terminal amino acids 3-16 (MMASDGHPGPPSVT). Homology of peptide antigen with the IP receptor from other species is as follows:
Mouse MMASDGHP - GPPSVT
Rat M v AS g r PdGPP i VT
- Cross-reactivity:** (+) Mouse and rat IP receptor; (-) human IP receptor; other species not tested
- Stability:** ≥2 years at -20°C
- Application:** Western blotting at 2 µg/ml (1:500) is the recommended starting dilution. Other applications have not been tested, therefore optimal working dilutions should be empirically determined

Prostaglandin I₂ (PGI₂) is a potent vasorelaxant and inhibitor of human platelet aggregation acting *via* the G-protein coupled PGI₂ receptor (IP receptor).¹ Research of the IP receptor also demonstrates its participation in signal transduction of the pain response, cardioprotection, and inflammation.²⁻⁶ Cloning of the murine and human IP receptors reveals a significant amino-terminal truncation of the human IP receptor compared to the murine receptor.^{7,8} Accordingly, this antibody is useful only for immunochemical analysis of murine and rat samples, detecting a 67 kDa band from murine neural tissues and platelets.

References

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2. Southall, M.D. and Vasko, M.R. Prostaglandin receptor subtypes, EP₃C and EP₄, mediate the prostaglandin E₂-induced cAMP production and sensitization of sensory neurons. *J. Biol. Chem.* **276(19)**, 16083-16091 (2001).
3. Murata, T., Ushikubi, E., Matsuoka, T., *et al.* Altered pain perception and inflammatory response in mice lacking prostacyclin receptor. *Nature* **388**, 678-682 (1997).
4. Cheng, Y., Austin, S.C., Rocca, B., *et al.* Role of prostacyclin in the cardiovascular response to thromboxane A₂. *Science* **296**, 539-541 (2002).
5. Cui, Y., Kataoka, Y., Satoh, T., *et al.* Protective effect of prostaglandin I₂ analogs on ischemic delayed neuronal damage in gerbils. *Biochem. Biophys. Res. Commun.* **265**, 301-304 (1999).
6. McLaughlin, V.V., Genthner, D.E., Panella, M.M., *et al.* Reduction in pulmonary vascular resistance with long-term epoprostenol (prostacyclin) therapy in primary pulmonary hypertension. *N. Engl. J. Med.* **338**, 273-277 (1998).
7. Nakagawa, O., Tanaka, I., Usui, T., *et al.* Molecular cloning of human prostacyclin receptor cDNA and its gene expression in the cardiovascular system. *Circulation* **90**, 1643-1647 (1994).
8. Namba, T., Oida, H., Sugimoto, Y., *et al.* cDNA cloning of a mouse prostacyclin receptor. Multiple signaling pathways and expression in thymic medulla. *J. Biol. Chem.* **269**, 9986-9992 (1994).



Lane 1: Murine brain homogenate (40 µg)
Lane 2: Murine brain homogenate (80 µg)

Related Products

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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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