

Product Information

Monoclonal Anti-Placenta Growth Factor antibody

Produced in mouse, purified immunoglobulin
Clone 37203.111

Catalog Number **P3868**

Product Description

Monoclonal Anti-Placenta Growth Factor antibody (PIGF; mouse IgG1 isotype) is produced from a mouse hybridoma elicited from a mouse immunized with purified recombinant human placenta growth factor expressed in *Escherichia coli* as immunogen. The antibody is purified from the IgG fraction of ascities fluid using protein G.

Monoclonal Anti-Placenta Growth Factor recognizes recombinant PIGF by ELISA capture. In ELISA, the antibody does not cross-react with recombinant human (rh) VEGF, rhPDGF-AA, rhPDGF-AB, or rhPDGF-BB; however, it does detect human PIGF in ELISA.

Placenta growth factor (PIGF) is a member of the vascular endothelial growth factor (VEGF) family of growth factors. PIGF, isolated from a human placental cDNA library, has 53% amino acid sequence homology in the PDGF-region of VEGF.¹ As a result of alternative splicing, three human isoform precursors (PIGF-1, PIGF-2, and PIGF-3) have been described.² In mouse tissues, there is only one mRNA encoding the equivalent of human PIGF-2. PIGF mRNA has been detected in human umbilical vein endothelial cells.³ The gene for PIGF is organized into seven exons and is mapped to chromosome 14.^{4,5} Placenta growth factor will potentiate VEGF that is present at low concentrations *in vitro* and *in vivo*.⁶ PIGF binds with high affinity to Flt-1, but not to Flk-1/KDR.⁶ Homodimeric recombinant PIGF migrates in SDS-PAGE as ~29 kDa protein.

Reagent

Lyophilized from 0.2 µm-filtered solution in phosphate buffered saline containing carbohydrates.

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

To one vial of lyophilized powder, add 1 mL of sterile phosphate buffered saline to produce a 0.5 mg/mL stock solution of antibody.

Storage/Stability

Prior to reconstitution, store at -20 °C. Reconstituted product may be stored at 2-8 °C for up to one month. For prolonged storage, freeze in working aliquots at -20 °C. Avoid repeated freezing and thawing. Do not store in frost-free freezer.

Product Profile

Capture ELISA: Monoclonal Anti-Placenta Growth Factor can be used as the capture antibody. Use a working concentration of the capture antibody of 2-8 µg/mL (100 µL/well) in combination with a biotinylated PIGF polyclonal detection antibody at 100 ng/ml (100 µL/well).

Note: In order to obtain the best results in various techniques and preparations, determination of optimal working dilutions by titration test is recommended.

References

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3. Kaipainen, A. et al., *J. Exp. Med.*, **178**, 2077 (1993).
4. DiPalma, T. et al., *Mamm. Genome*, **7**, 6 (1996).
5. Maglione, D. et al., *Oncogene*, **8**, 925 (1993).
6. Park, J. et al., *J. Biol. Chem.*, **269**, 25646 (1994).

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