# Product datasheet

## Anti-PDGFR beta antibody [42G12] ab69506

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| **Storage buffer** | pH: 7.20  
Preservative: 0.09% Sodium azide  
Constituents: 50% Glycerol, PBS |
| **Purity** | Tissue culture supernatant |
| **Purification notes** | Purified from TCS. |
| **Clonality** | Monoclonal |
| **Clone number** | 42G12 |
| **Isotype** | IgG1 |

## Applications

Our Abpromise guarantee covers the use of ab69506 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
**Function**

Receptor that binds specifically to PDGFB and PDGFD and has a tyrosine-protein kinase activity. Phosphorylates Tyr residues at the C-terminus of PTPN11 creating a binding site for the SH2 domain of GRB2.

**Involvement in disease**

- Note=A chromosomal aberration involving PDGFRB is found in a form of chronic myelomonocytic leukemia (CMML). Translocation t(5;12)(q33;p13) with EVT6/TEL. It is characterized by abnormal clonal myeloid proliferation and by progression to acute myelogenous leukemia (AML).
- Note=A chromosomal aberration involving PDGFRB may be a cause of acute myelogenous leukemia. Translocation t(5;14)(q33;q32) with TRIP11. The fusion protein may be involved in clonal evolution of leukemia and eosinophilia.
- Note=A chromosomal aberration involving PDGFRB may be a cause of juvenile myelomonocytic leukemia. Translocation t(5;17)(q33;p11.2) with SPECC1.
- Defects in PDGFRB are a cause of myeloproliferative disorder chronic with eosinophilia (MPE) [MIM:131440]. A hematologic disorder characterized by malignant eosinophils proliferation.
- Note=A chromosomal aberration involving PDGFRB is found in many instances of myeloproliferative disorder chronic with eosinophilia. Translocation t(5;12) with ETV6 on chromosome 12 creating an PDGFRB-ETV6 fusion protein.
- Note=A chromosomal aberration involving PDGFRB may be the cause of a myeloproliferative disorder (MBD) associated with eosinophilia. Translocation t(1;5)(q23;q33) that forms a PDE4DIP-PDGFRB fusion protein.

**Sequence similarities**

Belongs to the protein kinase superfamily. Tyr protein kinase family. CSF-1/PDGF receptor subfamily.

Contains 5 Ig-like C2-type (immunoglobulin-like) domains.

Contains 1 protein kinase domain.

**Post-translational modifications**

Autophosphorylated. Dephosphorylated by PTPRJ at Tyr-751, Tyr-857, Tyr-1009 and Tyr-1021.

**Cellular localization**

Membrane.

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### Images

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Immunohistochemistry analysis of human spleen tissue labeling PDGFR beta [42G12] with ab69506 at 20µg/ml. This image was generated using the ascites version of the product.

All lanes: Anti-PDGFR beta antibody [42G12] (ab69506) at 1 µg/ml

Lane 1: Molecular Weight Marker
Lane 2: Mouse Heart Muscle lysate

Developed using the ECL technique.

Predicted band size: 124 kDa
Observed band size: 124 kDa

Note: extra bands are secondary reactivity

This image was generated using the ascites version of the product.

Immunohistochemistry analysis of human placenta tissue labeling PDGFR beta [42G12] with ab69506 at at 20µg/ml. This image was generated using the ascites version of the product.
Overlay histogram showing NIH 3T3 cells stained with ab69506 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab69506, 1μg/1x10⁶ cells) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-mouse IgG (H&L) (ab150113) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 1μg/1x10⁶ cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.

This image was generated using the ascites version of the product.

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