

Anti-VEGF Receptor 3/FLT4 Antibody Picoband™

Catalog Number: A01276-3

About FLT4

Fms-related tyrosine kinase 4, also known as FLT4 or VEGFR3, is a protein which in humans is encoded by the FLT4 gene. It is mapped to 5q35.3. This gene encodes a tyrosine kinase receptor for vascular endothelial growth factors C and D. The protein is thought to be involved in lymphangiogenesis and maintenance of the lymphatic endothelium. FLT4 has an essential role in the development of the embryonic cardiovascular system before the emergence of the lymphatic vessels. It has been found that FLT4, which provides proangiogenic signaling when expressed on endothelium, may also have antiangiogenic properties when expressed at an avascular site by nonendothelial cells. FLT4 is also regarded as a regulator of vascular network formation.

Overview

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| Product Name | Anti-VEGF Receptor 3/FLT4 Antibody Picoband™ |
| Reactive Species | Human, Mouse, Rat |
| Description | Boster Bio Anti-VEGF Receptor 3/FLT4 Antibody Picoband™ catalog # A01276-3. Tested in ELISA, Flow Cytometry, IF, IHC, IHC-F, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. |
| Application | ELISA, Flow Cytometry, IF, IHC, IHC-F, ICC, WB |
| Clonality | Polyclonal |
| Formulation | Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4. |
| Storage Instructions | Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles. |
| Host | Rabbit |
| Uniprot ID | P35916 |

Technical Details

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| Immunogen | E. coli-derived human VEGF Receptor 3 recombinant protein (Position: Y25-N259). |
| Predicted Reactive Species | Human |
| Recommended Detection Systems | Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P), IHC(F) and ICC. |
| Cross Reactivity | No cross-reactivity with other proteins. |
| Isotype | Rabbit IgG |
| Form | Lyophilized |

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| Concentration | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. |
| Purification | Immunogen affinity purified. |
| Suggested Dilutions | <p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.5ug/ml</p> <p>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml</p> <p>Immunohistochemistry (Frozen Section), 0.5-1ug/ml</p> <p>Immunocytochemistry/Immunofluorescence, 2ug/ml</p> <p>Flow Cytometry, 1-3ug/1x10⁶ cells</p> <p>Direct ELISA, 0.1-0.5ug/ml</p> |

Anti-VEGF Receptor 3/FLT4 Antibody Picoband™ (A01276-3) Images

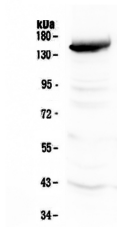


Figure 1. Western blot analysis of VEGF Receptor 3 using anti-VEGF Receptor 3 antibody (A01276-3). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat liver tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-VEGF Receptor 3 antigen affinity purified polyclonal antibody (Catalog # A01276-3) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for VEGF Receptor 3 at approximately 153KD. The expected band size for VEGF Receptor 3 is at 153KD.

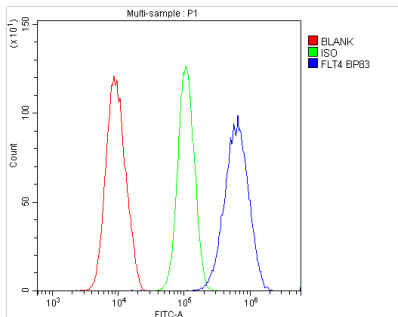


Figure 10. Flow Cytometry analysis of U2OS cells using anti-VEGF Receptor 3 antibody (A01276-3). Overlay histogram showing U2OS cells stained with A01276-3 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-VEGF Receptor 3 Antibody (A01276-3, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

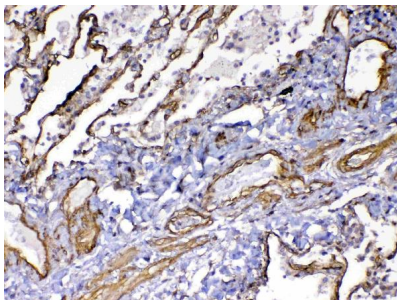
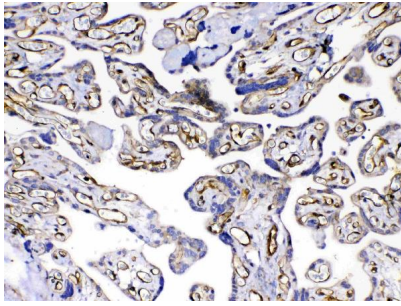


Figure 2. IHC analysis of VEGF Receptor 3 using anti-VEGF Receptor 3 antibody (A01276-3). VEGF Receptor 3 was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-VEGF Receptor 3 Antibody (A01276-3) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

Figure 3. IHC analysis of VEGF Receptor 3 using anti-VEGF Receptor 3 antibody (A01276-3). VEGF Receptor 3 was detected in paraffin-embedded section



of human placenta tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-VEGF Receptor 3 Antibody (A01276-3) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

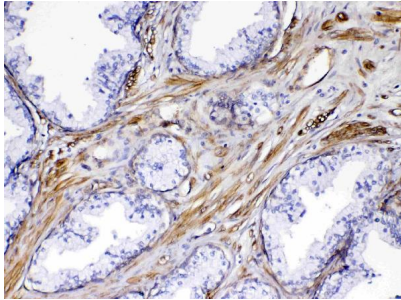


Figure 4. IHC analysis of VEGF Receptor 3 using anti-VEGF Receptor 3 antibody (A01276-3). VEGF Receptor 3 was detected in paraffin-embedded section of human prostatic cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-VEGF Receptor 3 Antibody (A01276-3) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

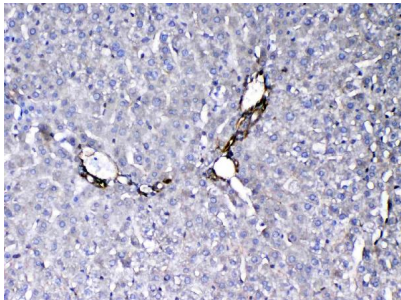


Figure 5. IHC analysis of VEGF Receptor 3 using anti-VEGF Receptor 3 antibody (A01276-3). VEGF Receptor 3 was detected in paraffin-embedded section of rat liver tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-VEGF Receptor 3 Antibody (A01276-3) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

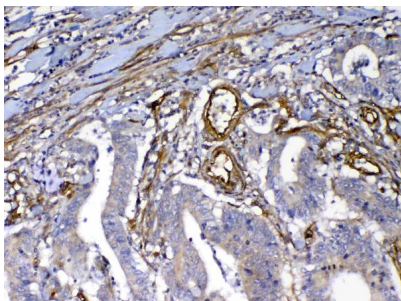


Figure 6. IHC analysis of VEGF Receptor 3 using anti-VEGF Receptor 3 antibody (A01276-3). VEGF Receptor 3 was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-VEGF Receptor 3 Antibody (A01276-3) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

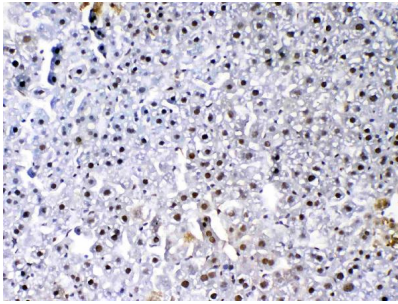


Figure 7. IHC analysis of VEGF Receptor 3 using anti-VEGF Receptor 3 antibody (A01276-3).
VEGF Receptor 3 was detected in paraffin-embedded section of mouse liver tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-VEGF Receptor 3 Antibody (A01276-3) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

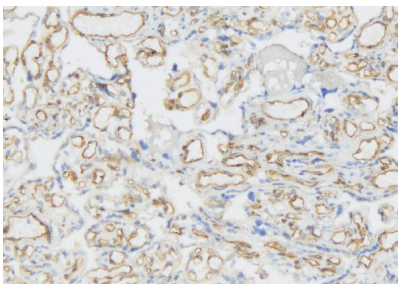


Figure 8. IHC analysis of VEGF Receptor 3 using anti-VEGF Receptor 3 antibody (A01276-3).
VEGF Receptor 3 was detected in frozen section of human placenta tissue. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-VEGF Receptor 3 Antibody (A01276-3) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

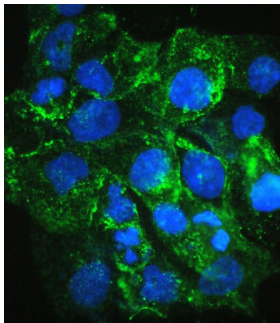


Figure 9. IF analysis of VEGF Receptor 3 using anti-VEGF Receptor 3 antibody (A01276-3).
VEGF Receptor 3 was detected in immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL rabbit anti-VEGF Receptor 3 Antibody (A01276-3) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

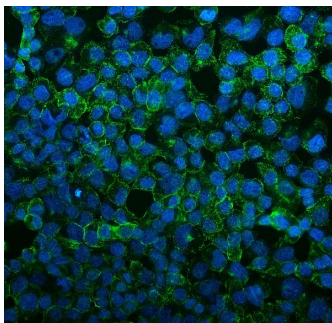


Figure 11. IF analysis of VEGF Receptor 3 using anti-VEGF Receptor 3 antibody (A01276-3).
VEGF Receptor 3 was detected in immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL rabbit anti-VEGF Receptor 3 Antibody (A01276-3) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

1. PubMed ID: 10.3892/etm.2021.9986, Expression levels of VEGF β C and VEGFR β 3 in renal cell carcinoma and their association with lymph node metastasis
2. PubMed ID: 10.1016/j.arcmed.2007.06.021, Expression of Cyclooxygenase-2 and Vascular Endothelial Growth Factor-C Correlates with Lymphangiogenesis and Lymphatic Invasion in Human Gastric Cancer
3. PubMed ID: 10.1007/s11670-010-0303-5, Interleukin-18 suppresses angiogenesis and lymphangiogenesis in implanted Lewis lung cancer

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