

Anti-VEGF Receptor 2/Kdr Antibody Picoband™

Catalog Number: A00901-3

About Kdr

KDR (Kinase Insert Domain Receptor), also known as FLK1, VEGFR or VEGFR2, is a VEGF receptor. KDR is the human gene encoding it. Vascular endothelial growth factor (VEGF) is the only mitogen that specifically acts on endothelial cells. Its expression is upregulated by hypoxia, and its cell-surface receptor, known as fetal liver kinase-1 (Flk1) in mouse, is exclusively expressed in endothelial cells. Flk1 is the mouse homolog of KDR.

Overview

Product Name	Anti-VEGF Receptor 2/Kdr Antibody Picoband™
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-VEGF Receptor 2/Kdr Antibody Picoband™ catalog # A00901-3. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Mouse, Rat.
Application	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
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	P35918

Technical Details

Immunogen	E. coli-derived mouse VEGF Receptor 2 recombinant protein (Position: A20-L244).
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) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.

Suggested Dilutions

Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.

If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.

Some PubMed article(s) citing the expression level of this target are as follows:

Boster Bio's internal QC testing used:

Western blot, 0.1-0.5ug/ml

Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml

Immunocytochemistry/Immunofluorescence, 2ug/ml

Flow Cytometry, 1-3ug/1x10⁶ cells

Anti-VEGF Receptor 2/Kdr Antibody Picoband™ (A00901-3) Images



Figure 1. Western blot analysis of VEGF Receptor 2 using anti-VEGF Receptor 2 antibody (A00901-3).

The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: Marker

Lane 2: mouse heart tissue lysates,

Lane 3: mouse thymus tissue lysates,

Lane 4: mouse spleen tissue lysates,

Lane 5: mouse kidney tissue lysates.

Lane 6: mouse brain tissue lysates,

Lane 7: mouse lung tissue lysates.

Lane 8: mouse HEPA1-6 whole cell lysates,

Lane 9: mouse NIH3T3 whole cell lysates.

The membrane was incubated with rabbit anti-VEGF Receptor 2 antigen affinity purified polyclonal antibody (Catalog # A00901-3) at 1.0 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 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system.

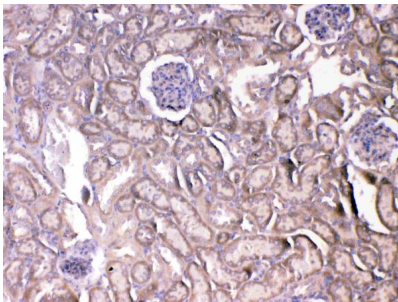


Figure 2. IHC analysis of VEGF Receptor 2 using anti-VEGF Receptor 2 antibody (A00901-3).

VEGF Receptor 2 was detected in paraffin-embedded section of mouse kidney 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 2 Antibody (A00901-3) 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.

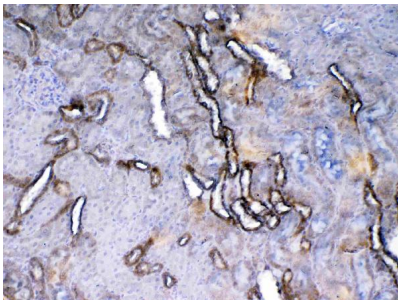
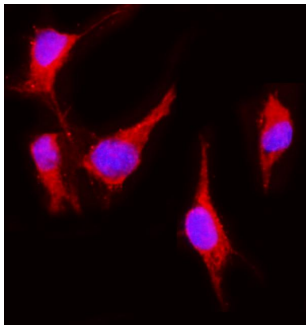


Figure 3. IHC analysis of VEGF Receptor 2 using anti-VEGF Receptor 2 antibody (A00901-3).

VEGF Receptor 2 was detected in paraffin-embedded section of rat kidney 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 2 Antibody (A00901-3) 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. IF analysis of VEGF Receptor 2 using anti-VEGF



Receptor 2 antibody (A00901-3). VEGF Receptor 2 was detected in immunocytochemical section of NIH3T3 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 2 Antibody (A00901-3) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) 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.

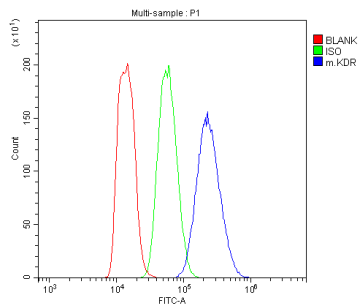


Figure 5. Flow Cytometry analysis of MFC cells using anti-VEGF Receptor 2 antibody (A00901-3). Overlay histogram showing MFC cells stained with A00901-3 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-VEGF Receptor 2 Antibody (A00901-3, 1ug/1x10⁶ cells) 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.

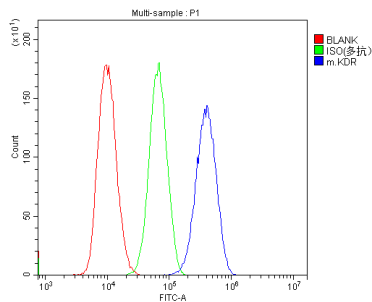


Figure 6. Flow Cytometry analysis of LLC cells using anti-VEGF Receptor 2 antibody (A00901-3). Overlay histogram showing LLC cells stained with A00901-3 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-VEGF Receptor 2 Antibody (A00901-3, 1ug/1x10⁶ cells) 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.

11 Publications Citing This Product

1. PubMed ID: PMID:25550894, Fructopyrano-(1 β 4)-glucopyranose inhibits the proliferation of liver cancer cells and angiogenesis in a VEGF/VEGFR dependent manner
2. PubMed ID: 10.3727/096368916X691123, Activation of Endogenous Cardiac Stem Cells by Apelin-13 in Infarcted Rat Heart:
3. PubMed ID: 10.1016/j.peptides.2012.02.006, Ghrelin promotes the differentiation of human embryonic stem cells in infarcted cardiac microenvironment

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