BOSTER
antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-VEGF Receptor 2/KDR Antibody Picoband®

Catalog Number: A00901-2

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	Human
Description	Boster Bio Anti-VEGF Receptor 2/KDR Antibody Picoband® catalog # A00901-2. Tested in Flow Cytometry, IHC, ICC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	Flow Cytometry, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na2HPO4, and 0.05 mg NaN3. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
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	P35968

Technical Details

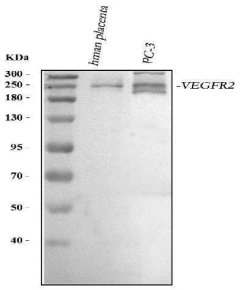
Immunogen	E. coli-derived human VEGF Receptor 2 recombinant protein (Position: A20-L242).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

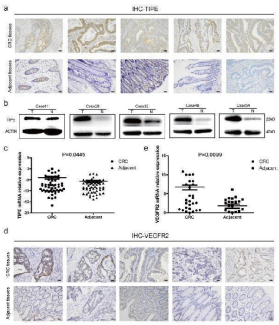
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml Immunocytochemistry, 0.5-1ug/ml ELISA (Cap),1-5ug/ml

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

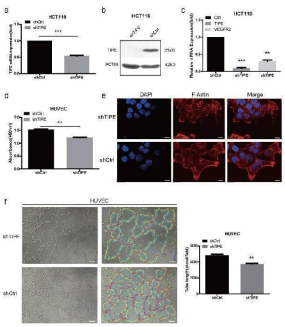
Anti-VEGF Receptor 2/KDR Antibody Picoband® (A00901-2) Images



Western blot analysis of VEGF Receptor 2 using anti-VEGF Receptor 2 antibody (A00901-2). 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 30 ug of sample under reducing conditions. Lane 1: human placenta tissue lysates, Lane 2: human PC-3 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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 2 antigen affinity purified polyclonal antibody (Catalog # A00901-2) 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 1:5000 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 2 at approximately 180-250 kDa. The expected band size for VEGF Receptor 2 is at 156 kDa.



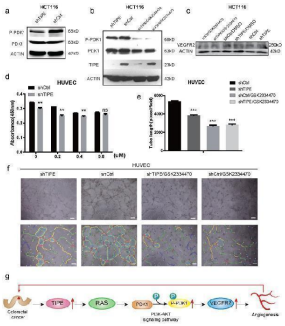
Tumor necrosis factor-alpha induced protein 8 (TIPE) and vascular endothelial growth factor receptor 2 (VEGFR2) are highly expressed in CRC and act as oncogenes. (a) TIPE expression in five pairs of fresh human CRC tumor tissues and matched adjacent tissues analyzed by immunohistochemistry staining. (b) Representative results of TIPE expression in five pairs of fresh CRC tumor tissues and adjacent tissues as detected by Western blot; T indicates tumor tissue, and N indicates normal tissue. (c) Comparison of TIPE mRNA expression levels in human CRC tissues and matched adjacent tissues. TIPE mRNA expression was quantified by qRT-PCR and normalized to that in the matched adjacent normal tissues. (d) Through immunohistochemical staining, VEGFR2 expression was analyzed in five randomly selected pairs of CRC tumor tissues and matched adjacent tissues. (e) Comparison of VEGFR2 mRNA expression levels in human CRC tissues and matched adjacent tissues. VEGFR2 mRNA expression was quantified by qRT-PCR and normalized to that in the matched adjacent normal tissues.Index in PubMed under a CC BY license. PMID: 31929755



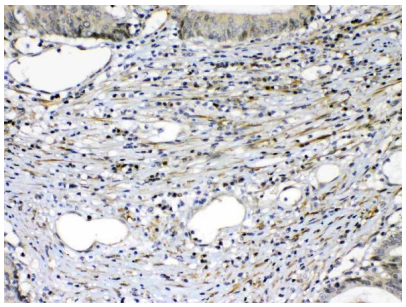
Knockdown of TIPE downregulates VEGFR2 expression and inhibits cell proliferation, cell migration and angiogenesis. (a) qRT-PCR of TIPE expression in HCT116 cells infected with lentiviral shTIPE or control shRNA. TIPE mRNA expression was quantified by qRT-PCR and normalized to that in the shRNA control cells. (b) TIPE expression in HCT116 cells infected with lentiviral shTIPE or control shRNA according to Western blot analysis. (c) Expression of VEGFR2 in shTIPE and shRNA control HCT116 cells based on qRT-PCR assays. (d) Tumor cell culture conditioned medium (TCM) from

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

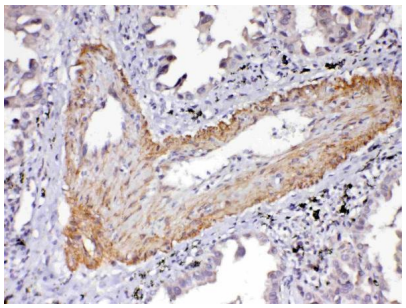
HCT116 cells stably transduced with shTIPE or control shRNA inhibited the proliferation of HUVECs as determined by CCK-8 assays. (e) Representative immunofluorescence (IF) images demonstrated that the level of TIPE has an effect on the expression of microfilaments and initial pseudopod extension in the stably transduced HCT116 cell lines. Scale bar, 50 μm. (f) Representative images (left panel) and quantification (right panel) of tube formation of HUVECs treated with TCM derived from control HCT116 cells or HCT116 cells with stable TIPE knockdown. The data were collected from four independent experiments using different batches of cells. Scale bar, 500 um. **p



TIPE promotes VEGFR2-mediated angiogenesis by upregulating PDK1 expression and phosphorylation. (a) TIPE knockdown in HCT116 cells inhibits PDK1 phosphorylation according to Western blot analysis. (b) After cells were treated with a PDK1 inhibitor (GSK2334470), the expression levels of TIPE and PDK1 and their corresponding phosphorylation levels were detected by Western blot analysis. (c) After cells were treated with GSK2334470 and DMSO, the expression levels of VEGFR2 were tested and verified by Western blot analysis. (d) The proliferation of HUVECs cultured with TCM in the presence of GSK2334470 was determined by CCK-8 assays. (e) Tube formation by HUVECs treated with GSK2334470 was measured, and the results are expressed as the tubule length. Representative statistical results are shown. (f) Representative morphological images are shown. Scale bar, 500 μm. ns: no significance, **p

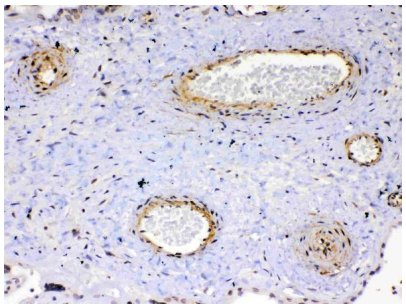


IHC analysis of VEGF Receptor 2 using anti-VEGF Receptor 2 antibody (A00901-2).VEGF Receptor 2 was detected in paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-VEGF Receptor 2 Antibody (A00901-2) overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

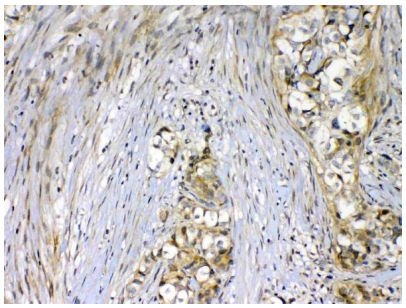


IHC analysis of VEGF Receptor 2 using anti-VEGF Receptor 2 antibody (A00901-2).VEGF Receptor 2 was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-VEGF Receptor 2 Antibody (A00901-2) overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com



IHC analysis of VEGF Receptor 2 using anti-VEGF Receptor 2 antibody (A00901-2).VEGF Receptor 2 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 2 Antibody (A00901-2) overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IHC analysis of VEGF Receptor 2 using anti-VEGF Receptor 2 antibody (A00901-2).VEGF Receptor 2 was detected in paraffin-embedded section of human mammary 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 2 Antibody (A00901-2) overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

5 Publications Citing This Product

1. PubMed ID: 10.3892/etm.2014.1780, Effects of propranolol and isoproterenol on infantile hemangioma endothelial cells in vitro

2. PubMed ID: 23671638, Wu Y, You H, Ma P, Li L, Yuan Y, Li J, Ye X, Liu X, Yao H, Chen R, Lai K, Yang X. Plos One. 2013 May 9;8(5):E62827. Doi: 10.1371/Journal.Pone.0062827. Print 2013. Role Of Transient Receptor Potential Ion Channels And Evoked Levels Of Neuropeptides...

3. PubMed ID: 25009634, Zhu Y, Tuerxun A, Hui Y, Abliz P. Exp Ther Med. 2014 Aug;8(2):647-651. Epub 2014 Jun 12. Effects Of Propranolol And Isoproterenol On Infantile Hemangioma Endothelial Cells In Vitro.

Visit bosterbio.com/anti-vegf-receptor-2-picoband-trade-antibody-a00901-2-boster.html to see all 5 publications.

Submit a product review to Biocompare.com

Submit a review of this product to Biocompare.com to receive a $20 Amazon.com giftcard! Your reviews help your fellow scientists make the right decisions. Thank you for your contribution.

Anti-VEGF Receptor 2/KDR Antibody

For Research Use Only. Not for use in diagnostic procedures.