

Anti-VEGFD/FIGF Antibody Picoband™

Catalog Number: PB9869

About VEGFD

C-fos induced growth factor (FIGF) (or vascular endothelial growth factor D, VEGF-D) is a vascular endothelial growth factor that in humans is encoded by the FIGF gene. The protein encoded by this gene is a member of the platelet-derived growth factor/vascular endothelial growth factor (PDGF/VEGF) family and is active in angiogenesis, lymphangiogenesis, and endothelial cell growth. Analyzing by Northern blotting, Yamada et al. (1997) symbolized VEGFD, was expressed as a 2.2-kb transcript with highest expression in lung, heart, small intestine, and fetal lung, and lower levels in skeletal muscle, colon, and pancreas. And Achen et al. (1998) concluded that VEGFD was most closely related to VEGFC by virtue of the presence of N- and C-terminal extensions that were not found in other VEGF family members. Stacker et al. (2001) showed that VEGFD can induce tumor angiogenesis through VEGFR2 and tumor lymphangiogenesis through VEGFR3, whereas VEGF, which does not activate VEGFR3, induces only tumor angiogenesis.

Overview

Product Name	Anti-VEGFD/FIGF Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-VEGFD/FIGF Antibody Picoband™ catalog # PB9869. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
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	O43915

Technical Details

Immunogen	E. coli-derived human VEGFD recombinant protein (Position: F89-R205). Human VEGFD shares 94% and 94.9% amino acid (aa) sequence identity with mouse and rat VEGFD, respectively.
Predicted Reactive Species	Bovine
Recommended Detection Systems	Boster provides a series of assays reacted with primary antibodies. Antibody can be supported by chemiluminescence kit EK1002 in WB, supported by SA1022 in IHC(P).
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, Mouse, Rat, Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, By Heat

Anti-VEGFD/FIGF Antibody Picoband™ (PB9869) Images

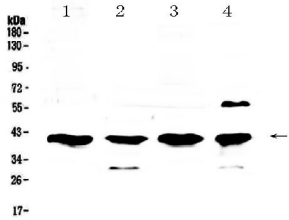


Figure 1. Western blot analysis of VEGFD using anti-VEGFD antibody (PB9869).

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 lung tissue lysates, Lane 2: rat brain tissue lysates, Lane 3: mouse lung tissue lysates, Lane 4: mouse brain 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-VEGFD antigen affinity purified polyclonal antibody (Catalog # PB9869) 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 VEGFD at approximately 40KD. The expected band size for VEGFD is at 40KD.

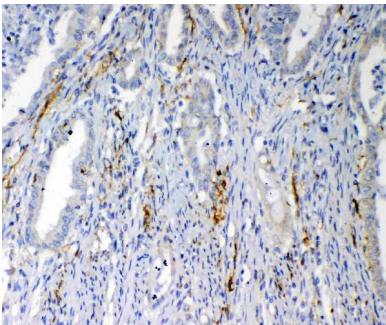


Figure 2. IHC analysis of VEGFD using anti-VEGFD antibody (PB9869).

VEGFD was detected in paraffin-embedded section of human colon 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-VEGFD Antibody (PB9869) 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.

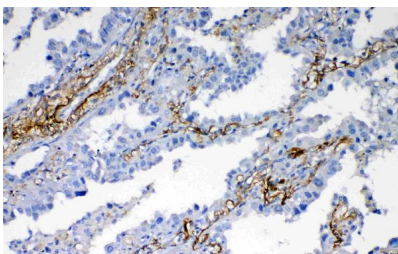
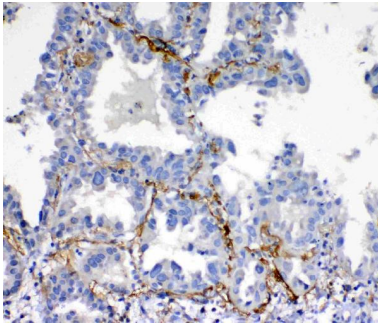


Figure 3. IHC analysis of VEGFD using anti-VEGFD antibody (PB9869).

VEGFD 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-VEGFD Antibody (PB9869) 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 VEGFD using anti-VEGFD antibody (PB9869).

VEGFD 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-VEGFD Antibody (PB9869) 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.

4 Publications Citing This Product

1. PubMed ID: 10.1007/s12149-008-0188-2, Efficacy and safety of 32P-nanocolloid for treatment of distant lymph node metastasis in VX2 tumor-bearing rabbits
2. PubMed ID: 24502459, Du Lc, Chen Xc, Wang D, Wen Yj, Wang Ct, Wang Xm, Kan B, Wei Yq, Zhao X. Reprod Biol Endocrinol. 2014 Feb 6;12:14. Doi: 10.1186/1477-7827-12-14. Vegf-D-Induced Draining Lymphatic Enlargement And Tumor Lymphangiogenesis Promote Lymph Node Metastasi...
3. PubMed ID: 19589137, The role of VEGF-C/D and Flt-4 in the lymphatic metastasis of early-stage invasive cervical carcinoma

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