

Anti-VEGFD Picoband Antibody

Catalog # ABO12555

Product Information

Application	WB, IHC-P
Primary Accession	O43915
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Vascular endothelial growth factor D(FIGF) detection. Tested with WB, IHC-P in Human; Mouse; Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	2277
Other Names	Vascular endothelial growth factor D {ECO:0000312 HGNC:HGNC:3708}, VEGF-D, c-Fos-induced growth factor, FIGF, VEGFD (HGNC:3708), FIGF
Calculated MW	40444
Application Details	Western blot, 0.1-0.5 µg/ml, Mouse, Rat, Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat
Subcellular Localization	Secreted.
Tissue Specificity	Highly expressed in lung, heart, small intestine and fetal lung, and at lower levels in skeletal muscle, colon, and pancreas.
Source	Eukaryota
Protein Name	Vascular endothelial growth factor D
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Na ₃ N.
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.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.

Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.
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Protein Information

Name	VEGFD (HGNC:3708)
Synonyms	FIGF
Function	Growth factor active in angiogenesis, lymphangiogenesis and endothelial cell growth, stimulating their proliferation and migration and also has effects on the permeability of blood vessels. May function in the formation of the venous and lymphatic vascular systems during embryogenesis, and also in the maintenance of differentiated lymphatic endothelium in adults. Binds and activates VEGFR-2 (KDR/FLK1) and VEGFR-3 (FLT4) receptors.
Cellular Location	Secreted.
Tissue Location	Highly expressed in lung, heart, small intestine and fetal lung, and at lower levels in skeletal muscle, colon, and pancreas

Background

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.

Images

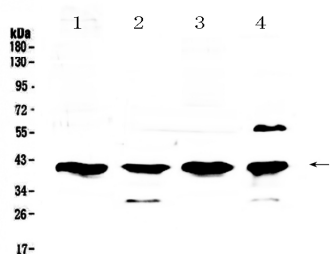


Figure 1. Western blot analysis of VEGFD using anti-VEGFD antibody (ABO12555). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat lung tissue 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 # ABO12555) at 0.5 µg/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 with Tanon 5200

system. A specific band was detected for VEGFD at approximately 40KD. The expected band size for VEGFD is at 40KD.

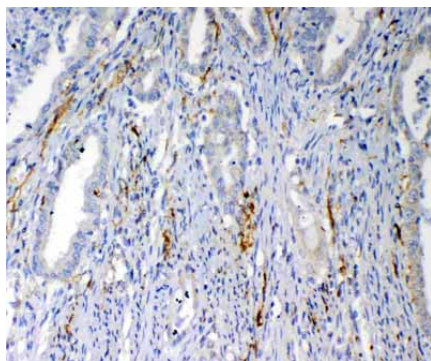


Figure 2. IHC analysis of VEGFD using anti-VEGFD antibody (ABO12555). VEGFD was detected in paraffin-embedded section of human colon cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti-VEGFD Antibody (ABO12555) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

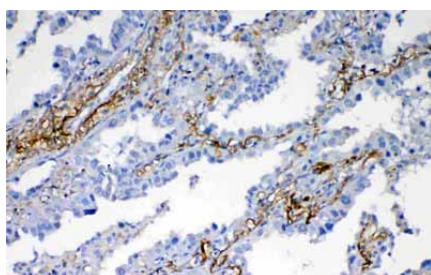


Figure 3. IHC analysis of VEGFD using anti-VEGFD antibody (ABO12555). VEGFD was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti-VEGFD Antibody (ABO12555) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

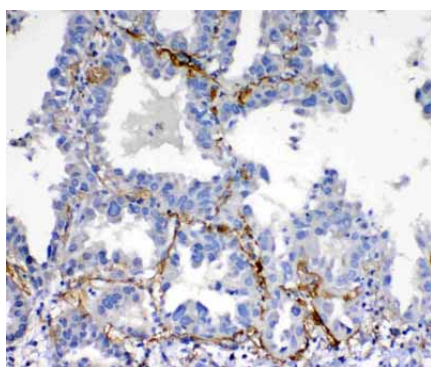


Figure 4. IHC analysis of VEGFD using anti-VEGFD antibody (ABO12555). VEGFD was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti-VEGFD Antibody (ABO12555) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

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