

Product Datasheet

VEGFR2/KDR/FIk-1 Antibody (2C6) - BSA Free NBP2-36429-0.1mg

Unit Size: 0.1 mg

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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NBP2-36429-0.1mg

VEGFR2/KDR/FIk-1 Antibody (2C6) - BSA Free

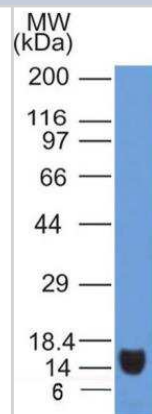
Product Information	
Unit Size	0.1 mg
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	2C6
Preservative	0.05% Sodium Azide
Isotype	IgG1 Kappa
Purity	Protein G purified
Buffer	PBS

Product Description	
Host	Mouse
Gene ID	3791
Gene Symbol	KDR
Species	Human
Immunogen	Partial recombinant human VEGFR2 protein (between amino acids 300-600) [UniProt# P35968].

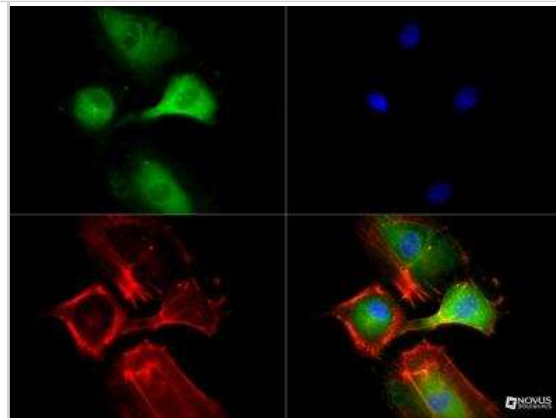
Product Application Details	
Applications	Western Blot, Flow (Cell Surface), Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 1.0 ug/ml, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 1:50 - 1:100, Immunohistochemistry-Paraffin 5 ug/ml, Flow (Cell Surface)

Images

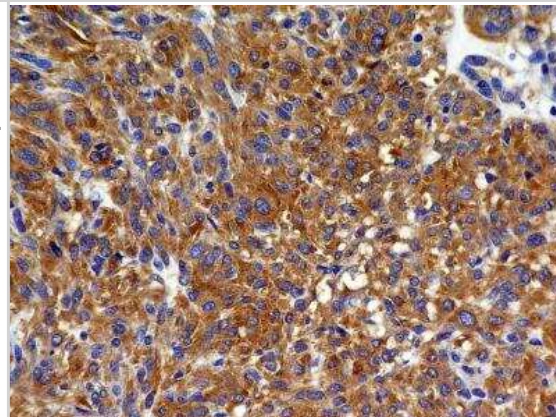
Western Blot: VEGF R2/KDR/FIk-1 Antibody (2C6) [NBP2-36429] - Analysis of VEGF R2/KDR/FIk-1 (clone 2C6) in partial recombinant protein.



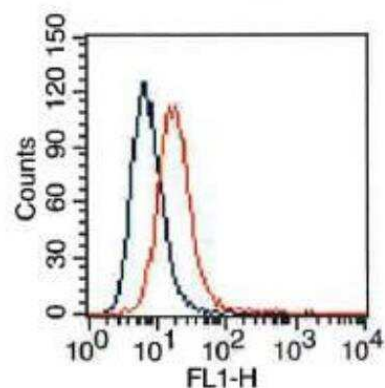
Immunocytochemistry/Immunofluorescence: VEGF R2/KDR/Fik-1 Antibody (2C6) [NBP2-36429] - Antibody (1:50) was tested in HUVEC cells with DyLight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and DyLight 550 (red).



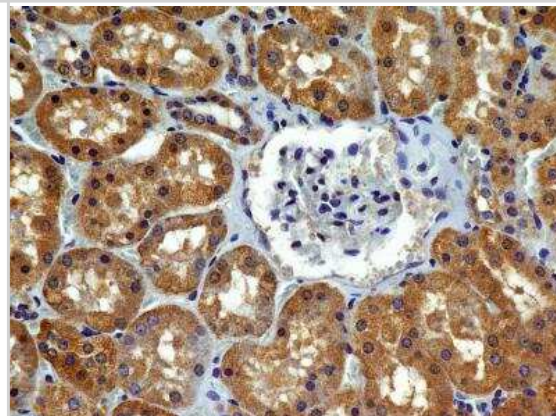
Immunohistochemistry-Paraffin: VEGF R2/KDR/Fik-1 Antibody (2C6) [NBP2-36429] - Analysis of FFPE tissue section of a malignant stromal tumor of the human small bowel with antibody at 5 ug/ml concentration. The cancer cells depicted a specific and strong staining in the cytoplasm.



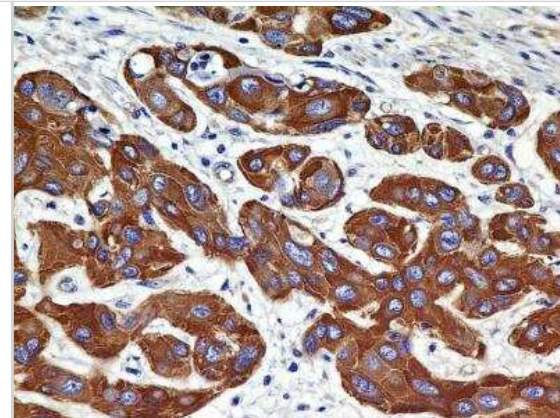
Flow (Cell Surface): VEGF R2/KDR/Fik-1 Antibody (2C6) [NBP2-36429] - HepG2 cells were stained (surface) with antibody (orange) or isotype control, mouse IgG1 (blue). Positive staining observed using FITC conjugated mouse anti-IgG(H+L) secondary antibody. Live cells (PPI negative) were gated for analysis



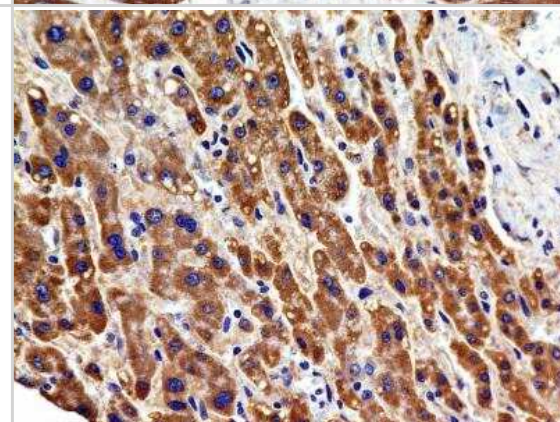
Immunohistochemistry-Paraffin: VEGF R2/KDR/Fik-1 Antibody (2C6) [NBP2-36429] - Analysis of FFPE tissue section of human normal kidney with antibody at 5 ug/ml concentration. The cuboidal epithelial cells of various tubules/ducts showed a specific cytoplasmic immunopositivity of VEGF R2/KDR/Fik-1 protein.



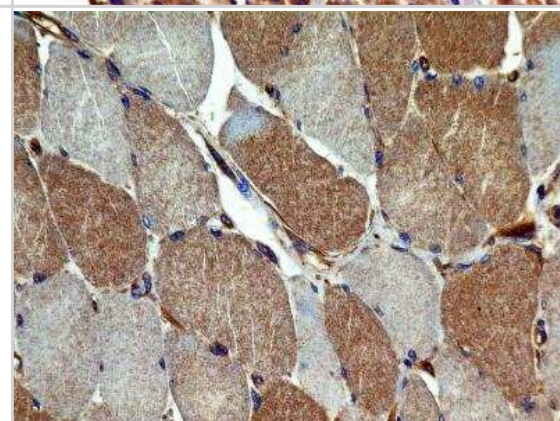
Immunohistochemistry-Paraffin: VEGF R2/KDR/Flk-1 Antibody (2C6) [NBP2-36429] - Analysis of FFPE tissue section of Human SCC of Esophagus with antibody at 5 ug/ml concentration. The cancer cells depicted a specific and strong staining in the cytoplasm while the tumor stroma was negative for VEGF R2/KDR/Flk-1 immunopositivity.



Immunohistochemistry-Paraffin: VEGF R2/KDR/Flk-1 Antibody (2C6) [NBP2-36429] - Analysis of FFPE tissue section of Human Hepatocellular Carcinoma with antibody at 5 ug/ml concentration. The cancer cells depicted a specific and strong staining in the cytoplasm.



Immunohistochemistry-Paraffin: VEGF R2/KDR/Flk-1 Antibody (2C6) [NBP2-36429] - Aanalysis of FFPE transverse section of normal human skeletal muscle with antibody at 5 ug/ml concentration. The myocytes showed a moderate diffused to granular staining in the cytoplasm.



Publications

Liu X, Yu Z, Daitoku K et al. Human aortic valve interstitial cells obtained from patients with aortic valve stenosis are vascular endothelial growth factor receptor 2 positive and contribute to ectopic calcification Journal of Pharmacological Sciences 2021-02-01 [PMID: 33451756] (ICC/IF, Human)

Liu X, Sun T, Ge Q, Zhu JCC Construction of Novel Bispecific Single-Domain Antibodies (BiSdAbs) with Potent Antiangiogenic Activities Pharmaceutical Fronts 2020-01-01

Procedures

Western Blot Protocol for VEGF Receptor 2 Antibody (NBP2-36429)

Western Blot Protocol

1. Perform SDS-PAGE on samples to be analyzed, loading 25 ug of total protein per lane.
2. Transfer proteins to membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.
3. Stain according to standard Ponceau S procedure (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.
4. Rinse the blot.
5. Block the membrane using standard blocking buffer for at least 1 hour.
6. Wash the membrane in wash buffer three times for 10 minutes each.
7. Dilute anti-VEGFR2 (2C6) primary antibody in blocking buffer and incubate 1 hour at room temperature.
8. Wash the membrane in wash buffer three times for 10 minutes each.
9. Apply the diluted HRP conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer three times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturers instructions.

Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%.

Immunocytochemistry/Immunofluorescence Protocol for VEGF Receptor 2 Antibody (NBP2-36429)

Immunocytochemistry Protocol

Culture cells to appropriate density in 35 mm culture dishes or 6-well plates.

1. Remove culture medium and add 10% formalin to the dish. Fix at room temperature for 30 minutes.
2. Remove the formalin and add ice cold methanol. Incubate for 5-10 minutes.
3. Remove methanol and add washing solution (i.e. PBS). Be sure to not let the specimen dry out. Wash three times for 10 minutes.
4. To block nonspecific antibody binding incubate in 10% normal goat serum from 1 hour to overnight at room temperature.
5. Add primary antibody at appropriate dilution and incubate at room temperature from 2 hours to overnight at room temperature.
6. Remove primary antibody and replace with washing solution. Wash three times for 10 minutes.
7. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.
8. Remove antibody and replace with wash solution, then wash for 10 minutes. Add Hoechst 33258 to wash solution at 1:25,000 and incubate for 10 minutes. Wash a third time for 10 minutes.
9. Cells can be viewed directly after washing. The plates can also be stored in PBS containing Azide covered in Parafilm (TM). Cells can also be cover-slipped using Fluoromount, with appropriate sealing.

*The above information is only intended as a guide. The researcher should determine what protocol best meets their needs. Please follow safe laboratory procedures.



Immunohistochemistry-Paraffin Protocol for VEGF Receptor 2 Antibody (NBP2-36429)

1. Deparaffinize the tissue sections by immersing the slides in Xylene with two changes for 10 min each. Sections should not get dried at any stage from this point.
2. Rehydrate the tissue sections by immersing the slides in decreasing grades of ethanol as follows:
 - a. Immerse in 100% ethanol with 2 changes for 5 minutes each
 - b. Immerse in 95% ethanol with 2 changes for 5 minutes each
 - c. Immerse in 90% ethanol for 5 minutes
 - d. Immerse in 70% ethanol for 5 minutes
 - e. Immerse in 50% ethanol for 5 minutes
 - f. Immerse in distilled water for 5 minutes
3. Antigen Retrieval (Microwave Method):
 - a. Immerse the slides in a microwave compatible tray containing 10 mM Sodium Citrate buffer (pH 6.0) with 0.05% Tween 20.
 - b. Boil the slides and maintain the sub-boiling temperature for 5 minutes in the microwave. Thereafter, take out the tray very carefully and cool it at room temperature (RT) for about 30 minutes.
 - c. Wash the slides 3 times, 3 minutes each by immersing them in TBST (Tris Buffered Saline having 0.05% Tween 20).
4. Quenching of Endogenous Peroxidase:
 - a. Incubate the slides in 3% hydrogen peroxide prepared in methanol for 15 minutes (at RT, in dark conditions).
 - b. Wash the slides in TBST 3 times, 3 minutes each.
5. Protein Blocking:
 - a. Incubate the sections with background sniper solution at RT for 15 minutes (Biocare Medicals, USA).
 - b. Wash the sections 3 times, 3 min each by immersing the slides in TBST.
6. Primary Antibody:
 - a. Dilute the primary antibody at 5ug/ml concentration using PBS as a diluent.
 - b. Incubate the sections with diluted primary antibody for 90 minutes at RT in a humidified chamber.
 - c. Thereafter, wash the slides 4 times, 5 minutes each with TBST.
7. Probe (Secondary Reagent):
 - a. Incubate with MACH 1 Mouse probe for 15 minutes at RT.
 - b. Incubate for 30 min at room temperature with HRP-Polymer (Biocare Medical, USA).
 - c. Wash the slides with TBST 4 times, 5 minutes each
8. Chromogen:
 - a. Mix 32ul of DAB Chromogen with 1 ml of DAB substrate buffer (Biocare Medical, USA).
 - b. Apply 200ul DAB mixture/section and incubate at RT in dark conditions (few seconds - 5 minutes).
 - c. As soon as an appropriate color develops, rinse the slides with deionized water (2-3 brief rinses).
9. Counter stain:
 - a. Counter stain with Hematoxylin for 30 seconds (Vector Labs, USA).
 - b. Wash in deionized water for 1-2 minutes to clear the extra stain.
 - c. Incubate the slides in bluing solution or Scott's water twice for 2 minutes each time.
10. Dehydrate the sections in increasing grades of alcohols:
 - a. 50% alcohol for 1 minute
 - b. 70% for 1 minute
 - c. 90% for 1 minute
 - d. 95% for 1 minute
 - e. 100% for 1 minute
 - f. Xylene with 2 changes for 2 minutes each
11. Mount with DPX mount and cover-slip glass (Fisher Scientific, USA), carefully not allowing any air bubbles to enter.

NOTE:- This protocol is provided as a reference tool only. Depending upon the type of tissues /tissue processing and reagents employed, the end user will need to optimize the final conditions for achieving an expected staining.



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Products Related to NBP2-36429-0.1mg

HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-43319-0.5mg	Mouse IgG1 Kappa Isotype Control (P3.6.2.8.1)
NB100-530PEP	VEGFR2/KDR/Flk-1 Antibody Blocking Peptide

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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