abcam

Product datasheet

Anti-VEGF Receptor 2 (phospho Y1214) antibody ab5475

11 References 2 Images

Overview

Product name	Anti-VEGF Receptor 2 (phospho Y1214) antibody
Description	Rabbit polyclonal to VEGF Receptor 2 (phospho Y1214)
Host species	Rabbit
Specificity	VEGFR3 has not been tested, but is expected to react.
Tested applications	**Suitable for:** WB
Species reactivity	**Reacts with:** Human, Recombinant fragment **Predicted to work with:** Rat
Immunogen	Synthetic peptide corresponding to Human VEGF Receptor 2 (phospho Y1214).
Positive control	WB: NIH 3T3 cells transfected with full length, wild-type human VEGFR 2 and Porcine Aortic Endothelial cells transfected with a chimeric receptor consisting of the extracellular domain of the CSF 1 receptor coupled to the transmembrane and cytoplasmic domains of the mouse VEGFR 2. HT-29 Serum Starved followed by treatment for 10 minutes with 100 ng/mL of SCF, Caco-2 Serum Starved followed by treatment for 10 minutes with 100 ng/mL of SCF.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	pH: 7.3 Preservative: 0.05% Sodium azide Constituents: PBS, 0.1% BSA BSA is IgG and protease free

Purity	Immunogen affinity purified
Purification notes	The antibody has been negatively preadsorbed using a non-phosphopeptide corresponding to the site of phosphorylation to remove antibody that is reactive with non-phosphorylated VEGFR 2 protein. The final product is generated by affinity chromatography using a VEGFR 2 derived peptide that is phosphorylated at Tyrosine 1214.
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab5475 in the following tested applications.

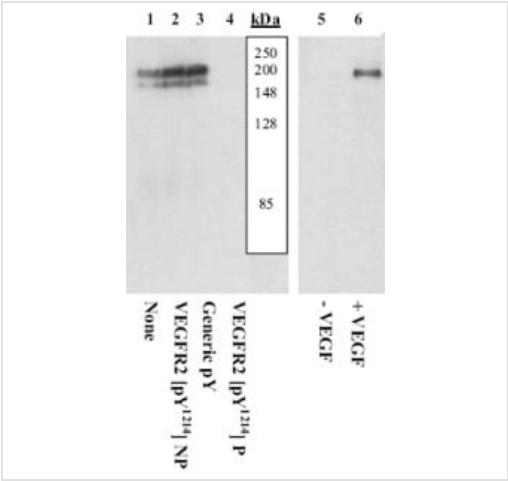
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 0.35 - 1 µg/ml. Detects a band of approximately 200 kDa.

Target

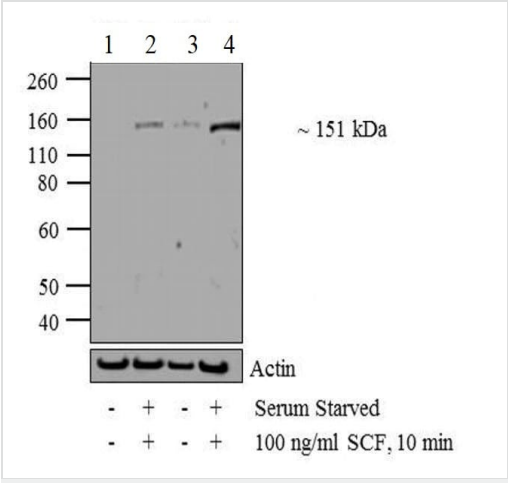
Function	Receptor for VEGF or VEGFC. Has a tyrosine-protein kinase activity. The VEGF-kinase ligand/receptor signaling system plays a key role in vascular development and regulation of vascular permeability. In case of HIV-1 infection, the interaction with extracellular viral Tat protein seems to enhance angiogenesis in Kaposi's sarcoma lesions.
Involvement in disease	Defects in KDR are associated with susceptibility to hemangioma capillary infantile (HCI) [MIM:602089]. HCI are benign, highly proliferative lesions involving aberrant localized growth of capillary endothelium. They are the most common tumor of infancy, occurring in up to 10% of all births. Hemangiomas tend to appear shortly after birth and show rapid neonatal growth for up to 12 months characterized by endothelial hypercellularity and increased numbers of mast cells. This phase is followed by slow involution at a rate of about 10% per year and replacement by fibrofatty stroma.
Sequence similarities	Belongs to the protein kinase superfamily. Tyr protein kinase family. CSF-1/PDGF receptor subfamily. Contains 7 Ig-like C2-type (immunoglobulin-like) domains. Contains 1 protein kinase domain.
Post-translational modifications	Phosphorylated. Dephosphorylated by PTPRB. Dephosphorylated by PTPRJ at Tyr-951, Tyr-996, Tyr-1054, Tyr-1059, Tyr-1175 and Tyr-1214.
Cellular localization	Membrane.

Images



Western blot - Anti-VEGF Receptor 2 (phospho Y1214) antibody (ab5475)

Peptide Competition and Stimulation: Extracts prepared from CSF-1 stimulated (1-4, 6) or unstimulated (5) PAE cells transfected with a chimeric CSF-1/VEGFR2 receptor were resolved by SDS-PAGE on a 10% polyacrylamide gel and transferred to PVDF. Membranes were blocked with a 5% BSA-TBST buffer overnight at 4°C, then were incubated with 0.50 µg/mL ab5475 antibody for two hours at room temperature in a 3% BSA-TBST buffer, following prior incubation with: no peptide (1, 5, 6), the nonphosphopeptide corresponding to the immunogen (2), a generic phosphotyrosine containing peptide (3), or, the phosphopeptide immunogen (4). After washing, membranes were incubated with goat F(ab')2 anti-rabbit IgG alkaline phosphatase and bands were detected using the Tropix WesternStar method. The data show that only the peptide corresponding to ab5475 blocks the antibody signal, and the stimulation of the phospho signal after stimulating ligand is added (CSF-1 for the chimeric r



Western blot - Anti-VEGF Receptor 2 (phospho Y1214) antibody (ab5475)

All lanes : Anti-VEGF Receptor 2 (phospho Y1214) antibody (ab5475) at 1/1000 dilution

Lane 1 : HT-29 (Human colorectal adenocarcinoma cell line) whole cell lysate
Lane 2 : HT-29 Serum Starved followed by treatment for 10 minutes with 100 ng/mL of SCF
Lane 3 : Caco-2 (Human colorectal adenocarcinoma cell line) whole cell lysate
Lane 4 : Caco-2 Serum Starved followed by treatment for 10 minutes with 100 ng/mL of SCF

Lysates/proteins at 30 µg per lane.

Secondary
All lanes : Goat anti-Rabbit IgG (H+L) Secondary Antibody, HRP conjugate at 1/5000 dilution

Observed band size: ~151 kDa

Modulation of expression of target protein by cell treatment to

demonstrate antibody specificity.

The membrane was probed with the relevant primary and secondary Antibody following blocking with 5 % skimmed milk. Chemiluminescent detection was performed using Pierce™ ECL Western Blotting Substrate

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