abcam

Product datasheet

Anti-VEGF Receptor 2 antibody [3D09] ab42230

1 References 1 Image

Overview

Product name	Anti-VEGF Receptor 2 antibody [3D09]
Description	Rat monoclonal [3D09] to VEGF Receptor 2
Host species	Rat
Specificity	This antibody shows no cross-reactivity with VEGF Receptor 1.
Tested applications	**Suitable for:** WB, IP, Functional Studies
Species reactivity	**Reacts with:** Mouse
Immunogen	Purified fragment, corresponding to N terminal amino acids 30-200 of Mouse VEGF Receptor 2
Positive control	Mouse skin endothelial cells (mSENDs)

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.
Purity	Protein G purified
Clonality	Monoclonal
Clone number	3D09
Isotype	IgG2a

Applications

Our Abpromise guarantee covers the use of **ab42230** in the following tested applications.

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

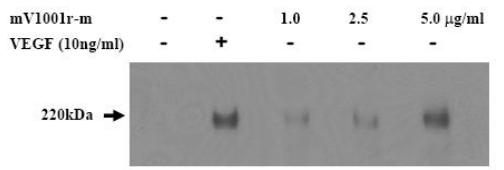
Application	Abreviews	Notes
WB		Use at an assay dependent dilution. Predicted molecular weight: 153 kDa.
IP		Use at an assay dependent dilution.

Application	Abreviews	Notes
Functional Studies		Use a concentration of 1 - 5 µg/ml. Can induce VEGF Receptor 2 tyrosine phosphorylation in mouse skin endothelial cells.

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



Functional Studies - Anti-VEGF Receptor 2 antibody [3D09] (ab42230)

Mouse skin endothelial cells (mSENDs) were stimulated with ab42230 or VEGF for 30min. Phospho-VEGF Receptor 2 was detected with and anti-phosphotyrosine antibody.

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