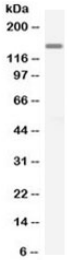
KDR Antibody / Kinase Insert Domain Receptor Antibody (R32082)

Catalog No.	Formulation	Size
R32082	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide
UniProt	P35968
Localization	Cytoplasmic and cell surface
Applications	Western blot: 0.1-0.5ug/ml
Limitations	This KDR Antibody / Kinase Insert Domain Receptor Antibody is available for research use only.



KDR Antibody in MCF7 Cells WB. Western blot testing of human MCF7 cell lysate with KDR Antibody. A prominent immunoreactive band is detected in the high molecular weight region consistent with VEGFR2/KDR. The receptor undergoes extensive glycosylation and maturation, producing forms with apparent molecular weights substantially above the approximately 152 kDa predicted polypeptide mass. The target-associated signal demonstrates detection of endogenous KDR and provides western blot validation for the Kinase Insert Domain Receptor Antibody.

Description

KDR Antibody / Kinase Insert Domain Receptor Antibody recognizes KDR, the human gene product more commonly known as vascular endothelial growth factor receptor 2 or VEGFR2. KDR is a receptor tyrosine kinase that serves as a principal signaling receptor for vascular endothelial growth factor and has a central role in angiogenesis, vascular development and endothelial cell function. The receptor is also designated CD309, while Flk1 is the historical name commonly used for its mouse homolog.

KDR is a single-pass transmembrane receptor containing an extracellular ligand-binding region and an intracellular split tyrosine kinase domain. Binding of VEGF promotes receptor dimerization and kinase activation, resulting in phosphorylation of intracellular tyrosine residues. These phosphorylation events recruit signaling proteins and initiate pathways that translate extracellular VEGF availability into changes in endothelial cell behavior.

Kinase Insert Domain Receptor signaling regulates endothelial cell proliferation, migration, survival and vascular permeability. Major downstream mechanisms include phospholipase C gamma and MAPK/ERK signaling as well as the PI3K/AKT pathway. Through these interconnected signaling networks, KDR contributes to the formation and remodeling of blood vessels during embryonic development and to vascular responses in adult tissues.

KDR is also extensively investigated in pathological angiogenesis. Increased VEGF signaling can promote development of tumor-associated blood vessels, while dysregulated receptor activity is relevant to diseases involving abnormal vascular growth or permeability. The VEGF-KDR signaling axis has consequently become an important focus of cancer biology, vascular research and development of anti-angiogenic therapies.

NSJ Bioreagents offers this KDR Antibody for research into VEGF signaling, receptor tyrosine kinase biology and angiogenesis. The Kinase Insert Domain Receptor Antibody terminology emphasizes the expanded name represented by the KDR gene symbol and provides a distinct naming convention for this VEGFR2-targeting reagent.

A KDR Antibody provides a polyclonal reagent for investigating VEGFR2 expression and signaling, while a Kinase Insert Domain Receptor Antibody supports research into angiogenesis, endothelial biology and VEGF-dependent pathways.

For another antibody targeting the same receptor, see our VEGFR2 Antibody / KDR Polyclonal Antibody.

Application Notes

Optimal dilution of the KDR Antibody / Kinase Insert Domain Receptor Antibody should be determined by the researcher.

Immunogen

Amino acids LDLPRLSIQKDILTIKANTTLQITCRGQRDLD of human KDR were used as the immunogen for the KDR antibody.

Storage

After reconstitution, the KDR antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Kinase Insert Domain Receptor antibody, VEGFR2 antibody, VEGF Receptor 2 antibody, CD309 antibody, Vascular Endothelial Growth Factor Receptor 2 antibody

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