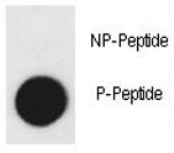
Phospho-KDR pY1175 Antibody / Phospho-VEGFR2 Antibody (F48625)

Catalog No.	Formulation	Size
F48625-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F48625-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	P35968
Localization	Cytoplasmic and cell surface
Applications	Dot blot: 1:500
Limitations	This Phospho-KDR pY1175 Antibody / Phospho-VEGFR2 Antibody is available for research use only.



Phospho-KDR pY1175 Antibody Phosphopeptide Specificity Dot Blot. Dot blot analysis of Phospho-KDR pY1175 Antibody using 50 ng per dot of non-phosphorylated peptide (NP-Peptide) and KDR pY1175 phosphopeptide (P-Peptide). A strong signal is detected with the phosphorylated peptide, while the corresponding non-phosphorylated peptide shows no appreciable signal. The clear discrimination between the matched peptide pair demonstrates phosphorylation-dependent recognition of the Tyr1175 epitope and supports the phospho-specificity of the Phospho-VEGFR2 Antibody.

Description

Phospho-KDR pY1175 Antibody / Phospho-VEGFR2 Antibody recognizes KDR/VEGFR2 when phosphorylated at tyrosine 1175. KDR, also known as vascular endothelial growth factor receptor 2, VEGFR2 and CD309, is a receptor tyrosine kinase that serves as a principal mediator of vascular endothelial growth factor signaling. Phosphorylation of intracellular tyrosine residues following receptor activation regulates recruitment of signaling proteins and initiation of

downstream pathways.

VEGFR2 contains an extracellular ligand-binding region, a single transmembrane segment and an intracellular split tyrosine kinase domain. VEGF binding promotes receptor dimerization, kinase activation and phosphorylation of multiple intracellular tyrosine residues. These phosphorylation events enable activated VEGFR2 to regulate endothelial cell proliferation, migration, survival and vascular permeability.

Tyrosine 1175 is a major VEGFR2 phosphorylation site and has an important role in propagating downstream signaling. Phosphorylation at this residue provides a docking site involved in activation of phospholipase C gamma and subsequent signaling through pathways including protein kinase C and MAPK/ERK. Detection of pY1175 can therefore provide information about VEGFR2 activation that is distinct from measurement of total receptor abundance.

VEGFR2 phosphorylation is central to studies of angiogenesis, endothelial signaling and vascular development. The VEGF-KDR pathway is also extensively investigated in cancer and other conditions involving abnormal vascular growth or permeability. A Phospho-VEGFR2 Antibody can complement total VEGFR2 measurements when examining receptor activation, downstream signaling or responses to factors that modulate the VEGF pathway.

NSJ Bioreagents offers this phospho-specific reagent for research into VEGFR2 activation and VEGF-dependent signal transduction. The Phospho-KDR pY1175 Antibody terminology identifies both the receptor and phosphorylation site, while Phospho-VEGFR2 Antibody reflects the widely recognized receptor designation.

A Phospho-KDR pY1175 Antibody provides a phosphorylation-specific reagent for investigating KDR phosphorylation at Tyr1175, while a Phospho-VEGFR2 Antibody supports research into VEGF receptor activation, angiogenesis and endothelial signaling.

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

Application Notes

Titration of the Phospho-KDR pY1175 Antibody / Phospho-VEGFR2 Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This Phospho-KDR pY1175 Antibody was produced from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding pY1175 of human KDR.

Storage

Aliquot the Phospho-KDR pY1175 Antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Phospho-VEGFR2 antibody, VEGFR2 pY1175 antibody, KDR pY1175 antibody, Phospho-CD309 antibody, Phospho-VEGF Receptor 2 antibody

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