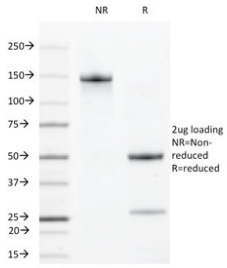
VEGFR2 Antibody DC101 / CD309 Antibody [clone DC101] (V8272)

Catalog No.	Formulation	Size
V8272-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8272-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8272SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Mouse
Format	Purified
Host	Rat
Clonality	Monoclonal (rat origin)
Isotype	Rat IgG1, kappa
Clone Name	DC101
Purity	Protein G affinity chromatography
UniProt	P35918
Applications	Western blot (Non-reducing): 2-5ug/ml
Limitations	This VEGFR2 Antibody DC101 / CD309 Antibody is available for research use only.



VEGFR2 Antibody DC101 in Mouse VEGFR2 WB. Western blot testing of purified recombinant mouse VEGFR2 with VEGFR2 Antibody clone DC101 under non-reducing conditions. Lane 1: 1 ug recombinant mouse VEGFR2; lane 2: 0.19 ug recombinant mouse VEGFR2. DC101 detects a strong VEGFR2-reactive band in both samples, with signal intensity corresponding to the amount of protein loaded. This experiment demonstrates recognition of mouse CD309 under non-reducing western blot conditions; performance under reducing conditions has not been established for the CD309 Antibody.

Description

VEGFR2 Antibody DC101 / CD309 Antibody recognizes vascular endothelial growth factor receptor 2, a receptor tyrosine kinase that plays a central role in VEGF-dependent angiogenesis and vascular biology. VEGFR2 is also designated

CD309 and is encoded by KDR in humans, while the corresponding mouse receptor is commonly called Flk1. VEGFR2 functions as a major signaling receptor through which VEGF regulates endothelial cell proliferation, migration, survival and vascular permeability.

VEGFR2 contains an extracellular ligand-binding region, a single transmembrane segment and an intracellular split tyrosine kinase domain. VEGF binding promotes receptor dimerization and kinase activation, followed by phosphorylation of intracellular tyrosine residues. These events recruit signaling proteins and activate pathways including phospholipase C gamma, MAPK/ERK and PI3K/AKT, linking extracellular VEGF signals to changes in endothelial cell behavior.

CD309 signaling is essential for formation and remodeling of the vascular system. VEGFR2-mediated responses contribute to endothelial proliferation and migration during new blood vessel formation and also influence vessel permeability and survival. These functions make the receptor important in developmental angiogenesis as well as vascular responses occurring in adult tissues.

The VEGF-VEGFR2 axis is extensively investigated in cancer because formation of tumor-associated vasculature can support tumor growth and progression. VEGFR2 has consequently become an important experimental target in studies of angiogenesis and anti-angiogenic strategies. Clone DC101 has an established research history as an antibody directed against mouse VEGFR2 and has been used in published experimental studies investigating blockade of VEGF receptor signaling and tumor-associated angiogenesis.

NSJ Bioreagents offers clone DC101 as a monoclonal reagent for research into VEGFR2 biology, VEGF signaling and angiogenesis. The VEGFR2 Antibody terminology identifies the widely recognized receptor name, while CD309 Antibody provides its established cluster-of-differentiation designation.

A VEGFR2 Antibody provides a monoclonal reagent for investigating VEGF receptor biology and angiogenic signaling, while a CD309 Antibody provides an alternative established designation for research involving this vascular receptor.

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

Application Notes

Optimal dilution of the VEGFR2 Antibody DC101 / CD309 Antibody should be determined by the researcher.

Immunogen

Recombinant full-length Mouse VEGFR2 protein was used as the immunogen for this VEGFR2 Antibody DC101.

Storage

Store the VEGFR2 Antibody DC101 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

CD309 antibody, KDR antibody, VEGF Receptor 2 antibody, Vascular Endothelial Growth Factor Receptor 2 antibody, Flk1 antibody

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