

**DP3509S****Polyclonal Antibody to CD309 / VEGFR-2 / Flk-1 - Azide Free****Alternate names:**

FLK1, KDR, Kinase NYK, Kinase insert domain receptor, Protein-tyrosine kinase receptor Flk-1, VEGF Receptor 2, VEGFR2, Vascular endothelial growth factor receptor 2

**Quantity:**

0.1 mg

**Background:**

VEGF receptor 2 is a member of a receptor tyrosine kinase family whose activation plays an essential role in a large number of biological processes such as embryonic development, wound healing, cell proliferation, migration and differentiation. Like other growth factor receptors, upon ligand binding VEGF receptor 2 dimerises and is autophosphorylated on multiple tyrosine residues. These sites can be involved in the regulation of kinase activity or serve as binding sites for SH2 and phosphotyrosine binding containing signalling proteins. Phosphorylation of Tyrosines 1054 and 1059 in the activation loop is required for activation of VEGF receptor 2 and its intrinsic tyrosine kinase activity. In case of HIV-1 infection, the interaction with extracellular viral Tat protein seems to enhance angiogenesis in Kaposi's sarcoma lesions.

**Uniprot ID:**[P35968](#)**NCBI:**[NP\\_002244.1](#)**GeneID:**[3791](#)**Host:**

Rabbit

**Immunogen:**

Recombinant Human soluble extracellular domain of KDR protein (D1-7).

**Remarks:** The antibody is identical with the former described antibody r212 (see Lit.)**Format:****State:** Lyophilized purified Ig fraction**Purification:** Affinity Chromatography on Protein A**Buffer System:** PBS, pH 7.4 without preservatives or stabilizers**Reconstitution:** Restore in sterile water to a concentration of 0.1-1.0 mg/ml.**Applications:****ELISA** (5-15 µg/ml).**Western blotting** (1-20 µg/ml).**Immunoprecipitation** (1-2 µg/mg protein lysate).**FACS analysis** (1-5 µg/ml).**Neutralizing experiments:** Depending on the conditions and ligand concentration start with 25-50 µg/ml.**Immunohistochemistry with Cryo Sections.**

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

**Specificity:**

The polyclonal antibody will detect native and recombinant Human VEGFR-2/KDR in ELISA experiments and on the surface or solubilized from different Human cell types.

**Species Reactivity:****Tested:** Human.

**Storage:**

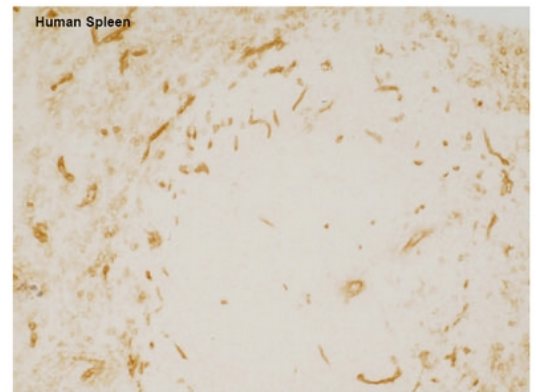
Store lyophilized at 2-8°C for 6 months or at -20°C long term.  
 After reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C long term.  
 Avoid repeated freezing and thawing.  
 Shelf life: one year from despatch.

**General Readings:**

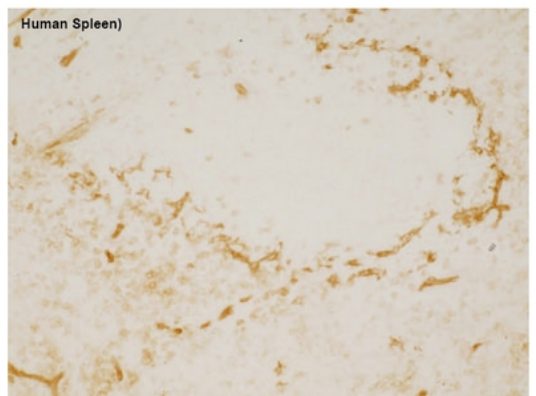
1. Simon M, Röckl W, Hornig C, Gröne EF, Theis H, Weich HA, et al. Receptors of vascular endothelial growth factor/vascular permeability factor (VEGF/VPF) in fetal and adult human kidney: localization and [125I]VEGF binding sites. *J Am Soc Nephrol.* 1998 Jun;9(6):1032-44. PubMed PMID: 9621286.
2. Clauss M, Weich H, Breier G, Knies U, Röckl W, Waltenberger J, et al. The vascular endothelial growth factor receptor Flt-1 mediates biological activities. Implications for a functional role of placenta growth factor in monocyte activation and chemotaxis. *J Biol Chem.* 1996 Jul 26;271(30):17629-34. PubMed PMID: 8663424.
3. Morbidelli L, Birkenhaeger R, Roeckl W, Granger HJ, Kaerst U, Weich HA, et al. Distinct capillary density and progression promoted by vascular endothelial growth factor-A homodimers and heterodimers. *Angiogenesis.* 1997;1(1):117-30. PubMed PMID: 14517398.
4. Roeckl W, Hecht D, Sztajer H, Waltenberger J, Yayon A, Weich HA. Differential binding characteristics and cellular inhibition by soluble VEGF receptors 1 and 2. *Exp Cell Res.* 1998 May 25;241(1):161-70. PubMed PMID: 9633524.

**Pictures:**

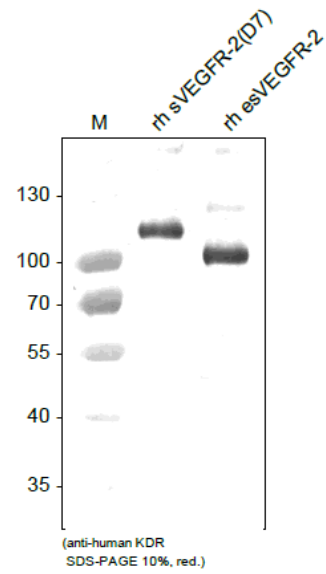
Immunohistochemistry with Cryo sections using polyclonal anti-Human VEGFR-2/KDR antibody (RT, Cat.-No DP3509S). *The experiment was performed by Prof. Dr. Birte Steiniger, Institute of Anatomy and Cell Biology Robert-Koch-Str. 8, D-35037 Marburg, Germany.*



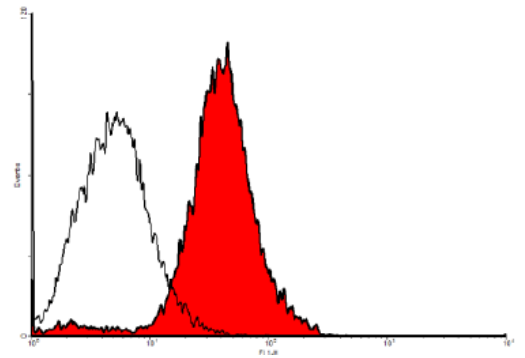
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Western Analysis of anti-human VEGFR-2/KDR. Samples were loaded in 10% SDS-polyacrylamide gel under reducing conditions



FACS analysis with primary human dermal lymphatic endothelial cells (HDLEC).



FACS analysis with primary human umbilical vein endothelial cells (HUVEC).

