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Product datasheet for DM3523P

VEGF Receptor 2 (KDR) Mouse Monoclonal Antibody [Clone ID: 4 (20I6)]

Product data:

Product Type:	Primary Antibodies
Clone Name:	4 (20I6)
Applications:	ELISA, FC, IF, IHC, WB
Recommended Dilution:	**ELISA:** 1-10 µg/ml. **Western blot:** 2-5 µg/ml. **Immunofluorescence/Immunohistochemistry on Frozen Sections:** 6-30 µg/ml. **FACS analysis and cell sorting:** 2-5 µg/ml.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Recombinant Human soluble extracellular VEGFR-2 / KDR (D7) (110 kDa) protein (*Cat.-No* AR26018PU-N).
Specificity:	This monoclonal antibody will detect native Human VEGFR-2 / KDR in ELISA experiments and on the surface of different Human cell types.
Formulation:	PBS, pH 7.4 State: Purified State: Lyophilized purified IgG fraction
Reconstitution Method:	Restore in sterile water to a concentration of 0.1-1.0 mg/ml.
Purification:	Affinity Chromatography on Protein G
Conjugation:	Unconjugated
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.
Stability:	Shelf life: one year from despatch.
Gene Name:	kinase insert domain receptor

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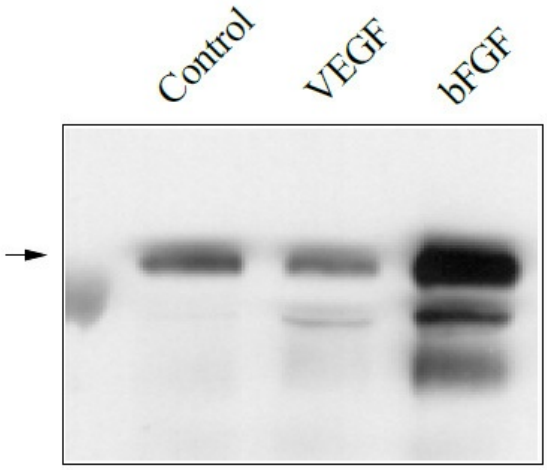
Database Link: Entrez Gene 3791 Human
P35968

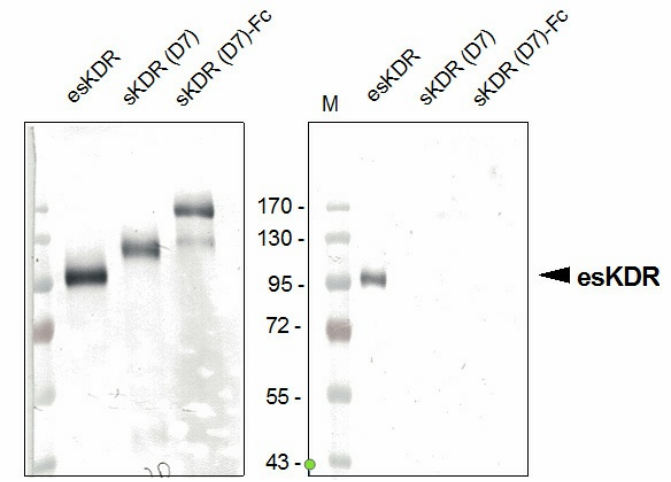
Background: VEGF receptor 2 is a member of a receptor tyrosine kinase family whose activation plays an essential role in a large number of biological processes such as embryonic development, wound healing, cell proliferation, migration and differentiation. Like other growth factor receptors, upon ligand 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.

Synonyms: VEGFR2, FLK1, KDR, VEGF Receptor 2

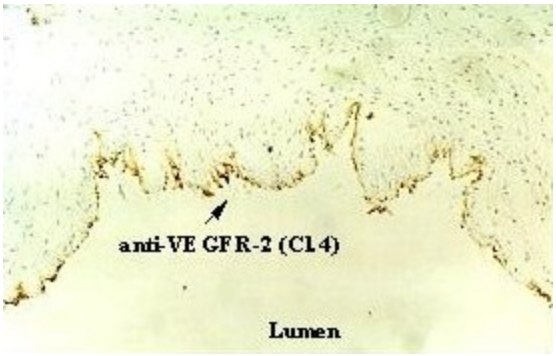
Product images:



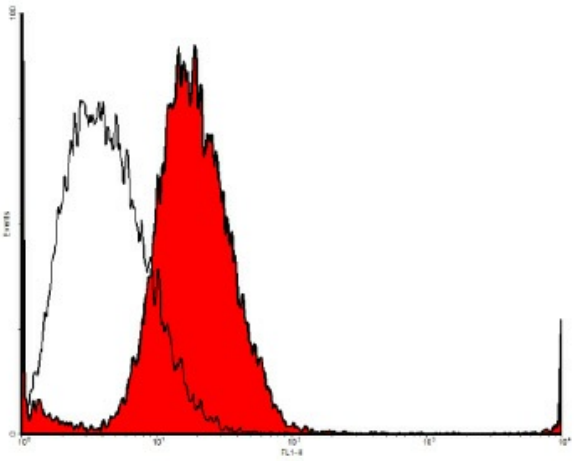
Up-regulation of VEGFR-2 in primary HUVECs by bFGF: Freshly isolated HUVECs (passage 1) were cultured in EBM. Subconfluent cultures were stimulated with VEGF (5 ng/ml) or bFGF (10 ng/ml) for 3 days. Total lysate was prepared and subjected to immunoprecipitation (anti-human VEGFR-2 Antibody [DM3522P]) followed by Western blotting (anti-human VEGFR-2 antibody). (Bernhard Barleon et.al., unpublished data!).



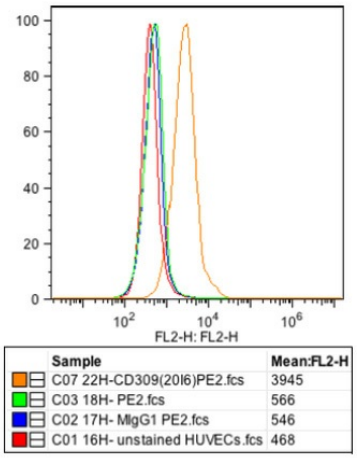
Recombinant human endogenous soluble VEGFR-2/KDR (esKDR) was produced in insect cells. Western blot was performed using our monoclonal anti-VEGFR-2 #4 recognizing the soluble as well as the transmembrane form of KDR (left panal) ad the new poyclonal antibody (-L) directed against the unique C-terminal end of the endogenous sKDR (CGRETILDHSAEAVGMP) recognizing solely the endogenous form but not sKDR (D7) and sKDR (D7)-Fc consisting of the full extraplasmatic domain. The endogenous sKDR generated by alternative splicing consists of the first 6 Ig-like loops with a unique c-terminal end.



Up-regulation of VEGFR-2 in vein ECs of an intact Human umbilical cord by bFGF: A fresh human umbilical cord was rinsed with PBS to remove residual blood cells, cut in small pieces (about 0.5 cm), incubated in EBM (1% FCS) and stimulated with or without 20 ng/ml bFGF for 24 h. Pieces were frozen in liquid nitrogen and used for immunohistochemistry using the mab anti-human VEGFR-2 antibody as detection antibody. (*Bernhard Barleon et al.*, unpublished data!)



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



Sample	Mean:FL2-H
C07 22H-CD309(20I6)PE2.fcs	3945
C03 18H- PE2.fcs	566
C02 17H- MIgG1 PE2.fcs	546
C01 16H- unstained HUVECs.fcs	468

FACS analysis of VEGFR-2/KDR expression in HUVE cells [5ug/ml #; 5ug/ml PE goat anti-mouse IgG]. The experiment was performed by Trisha M. Westerhof, University of California, Irvine.