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Product datasheet for DM3522P

VEGF Receptor 2 (KDR) Mouse Monoclonal Antibody [Clone ID: 4H3]

Product data:

Product Type:	Primary Antibodies
Clone Name:	4H3
Applications:	ELISA, FC, IF, IP, WB
Recommended Dilution:	**ELISA:** 1-15 µg/ml. **Western blot:** 2-5 µg/ml. **Immunofluorescence/Immunohistochemistry:** 1-5 µg/ml. **Flow Cytometry and Cell Sorting:** Use at 2-5 µg/ml together with the appropriate secondary reagents.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Recombinant Human soluble extracellular KDR (D7) (110 kDa) protein (*Cat.-No* AR26018PU-N)
Specificity:	This 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 without preservatives State: Purified State: Lyophilized purified IgG fraction
Reconstitution Method:	Restore in sterile water to a concentration of 0.1-1.0 mg/ml.
Purification:	Protein G Chromatography
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:

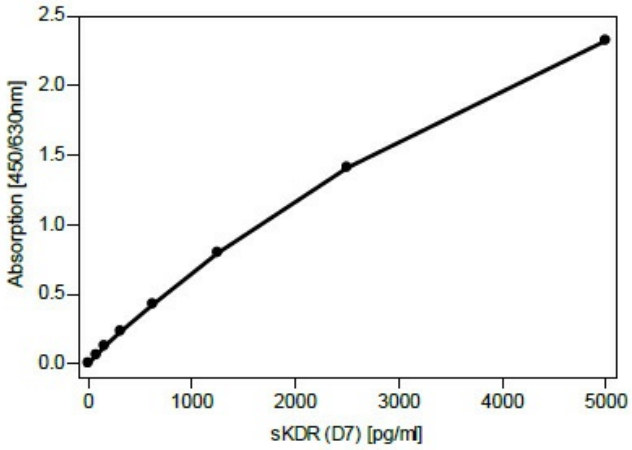

Figure 3: VEGFR-2/KDR Sandwich-ELISA using soluble KDR (D7) [S01-002] as standard. Mouse anti-human VEGFR-2 was used as capture antibody, Biotinylated rabbit anti-human VEGFR-2 [DP3509B] was used for detection.

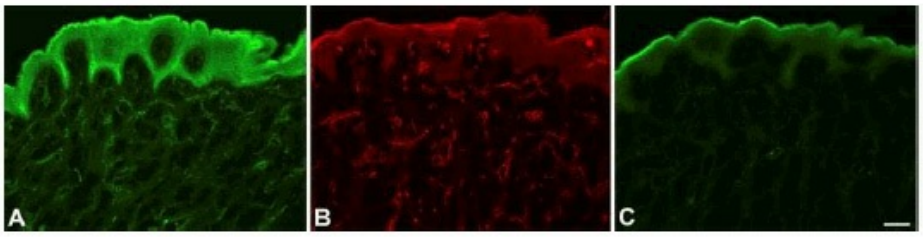

Figure 5. Consecutive sections of unfixed, human foreskin. A) Staining with anti-soluble VEGFR2/KDR antibodies (-L). Note signal in epidermis and vessels. B) Staining with anti-membrane-bound VEGFR-2/KDR. Note staining in vessels. C) Negative control. Note non-specific fluorescence in the hornified layer of the epithelium. Provided by Prof. J. Wilting, GÃ¶ttingen, Germany.

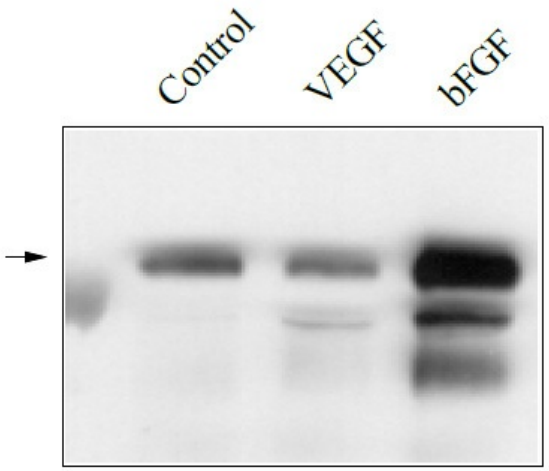

Figure 1. Up-regulation of VEGFR-2 in primary HUVECs by bFGF: Freshly isolated HUVECs (passage 1) were cultured in EBM. Subconfluent cultures were stimulated with VEGF (5 ng/ml) or bFGF (10 ng/ml) for 3 days. Total lysate was prepared and subjected to immunoprecipitation (anti-Human VEGFR-2) followed by Western blotting (anti-Human VEGFR-2 antibody [DM3523P]). (Bernhard Barleon et.al., unpublished data!)

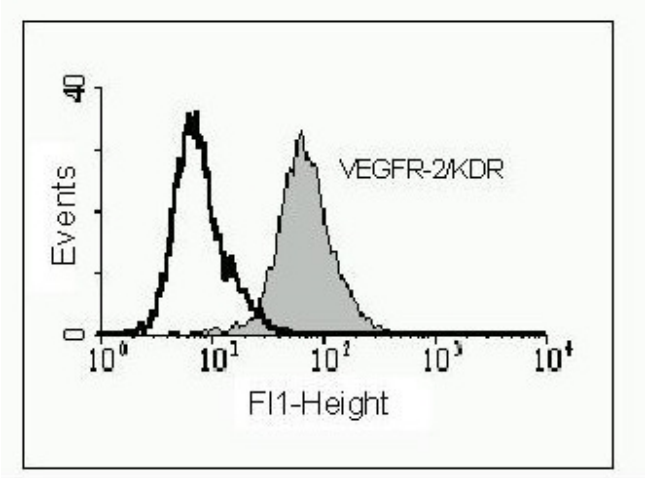

Figure 4. FACS analysis with primary HUVECs using anti-Human VEGFR-2 antibody.

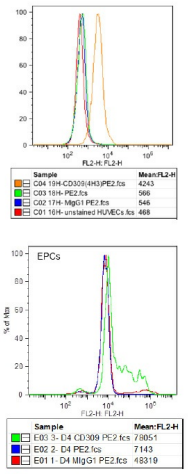

Figure 2. FACS analysis of VEGFR-2/KDR expression in HUVE cells (upper level) and EPCs derived from PBMcs (lower level) [5ug/ml ; 5ug/ml PE goat anti-mouse IgG]. The experiment was performed by Trisha M. Westerhof, University of California, Irvine.