Anti-human VEGFR-2/KDR

20201118DS

FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	**102-PA18**
Size:	200 µg
Lot. No.:	According to product label
Country of origin:	Germany

Preparation: Produced from sera of rabbits immunized with highly pure recombinant human soluble extracellular domain of KDR (D1-7) as the immunizing antigen.

Target Background

Synonyms:	Vascular endothelial growth factor receptor 2, Protein-tyrosine kinase receptor flk-1

$sKDR_{D1-7}$) is produced as a non-chimeric protein in a monomeric form. The soluble receptor protein consists of all 7 extracellular domains, which contain all the information necessary for high affinity ligand binding. The receptor monomers have a mass of approximately 116kDa.
Endothelial cells express three different vascular endothelial growth factor (VEGF) receptors, belonging to the family of receptor tyrosine kinases (RTKs). They are named VEGFR-1 (Flt-1), VEGFR-2 (KDR/Flk-1), VEGFR-3 (Flt-4). Their expression is almost exclusively restricted to endothelial cells, but VEGFR-1 can also be found on monocytes.
All VEGF-receptors have seven immunoglobulin-like extracellular domains, a single transmembrane region and an intracellular split tyrosine kinase domain. VEGFR-2 has a lower affinity for VEGF than the Flt-1 receptor, but a higher signaling activity. Mitogenic activity in endothelial cells is mainly mediated by VEGFR-2 leading to their proliferation. The binding of $VEGF_{165}$ to VEGFR-2 is dependent on heparin.

References

1. Röckl et al., 1998, Exp Cell Res, 241: 161-170].

Database References Antigen

Protein RefSeq:	NP_002244.1
Uniprot ID:	P35968
mRNA RefSeq:	NM_002253.2

Product Specifications

Species reactivity	human
Clone/Ab feature	Rabbit IgG
Cross reactivity	ND
Host	rabbit
Clonality	polyclonal
Purification	Protein A purified
Immunogen	Recombinant human KDR (D1-7)
Formulation	lyophilized
Buffer	PBS

Stability: The lyophilized antibody is stable for at least 2 years at -20°C. After sterile reconstitution the antibody is stable at 2-8°C for up to 6 months. Frozen aliquots are stable for at least 6 months when stored at -20°C. Addition of a carrier protein or 50% glycerol is recommended for frozen aliquots.

Reconstitution: Centrifuge vial prior to opening. Reconstitute in sterile water to a concentration of 0.1-1.0 mg/ml.

AVOID REPEATED FREEZE AND THAW CYCLES!

Applications

Western Blot:	Use at 1-5 µg/ml
ELISA:	Use at 5-15 µg/ml
Others	For IP use 1-2 µg/ml
FACS	Use at 1-5 µg/ml

NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!

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Handling/Applications

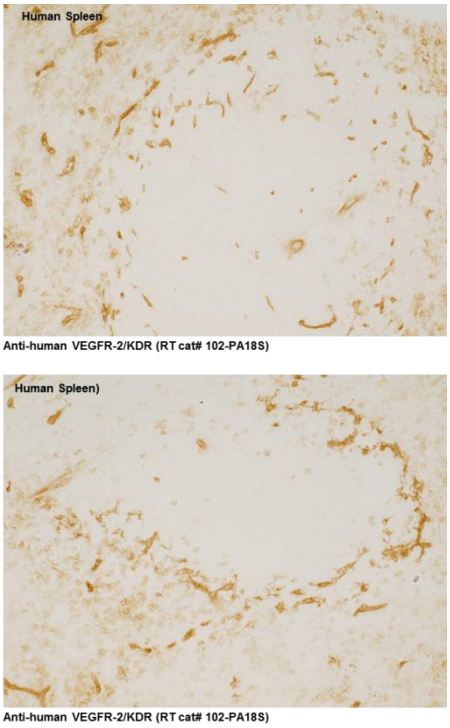

Figure 1: IHC with cryo sections of human spleen. The experiment was performed by Prof. Dr. Birte Steiniger, Institute of Anatomy and Cell Biology Robert-Koch-Str. 8, D-35037 Marburg, Germany

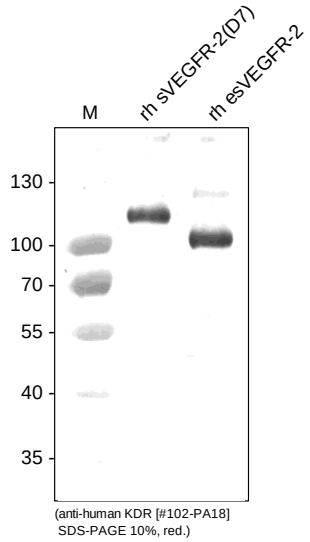

Figure 2: Western Analysis of anti-human VEGFR-2/KDR. Samples were loaded in 10% SDS-polyacrylamide gel under reducing conditions.

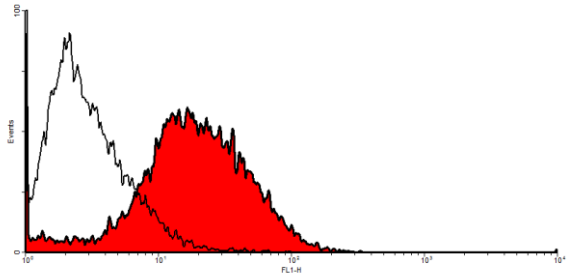

Figure 3. FACS analysis with primary human umbilical vein endothelial cells (HUVEC).

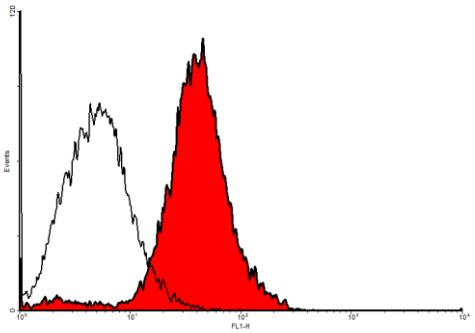

Figure 4. FACS analysis with primary human dermal lymphatic endothelial cells (HDLEC).