



Anti-mouse endogenous sVEGFR-2/Flk-1



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	103-PA19S
Size:	100 µg
Lot. No.:	According to product label
Country of origin:	Germany

Preparation: Produced from sera of rabbits immunised with a peptide of the C-terminal end of native mouse soluble VEGFR-2/Flk-1 (GMEASLGDRAMP).

Target Background

Synonyms:	fetal liver kinase, Flk1, Flk-1, Kinase NYK
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Disruption of the precise balance of positive and negative molecular regulators of blood and lymphatic vessel growth can lead to myriad diseases. Although dozens of natural inhibitors of hemangiogenesis have been identified, an endogenous selective inhibitor of lymphatic vessel growth has not to our knowledge been previously described. A splice variant of the gene encoding vascular endothelial growth factor receptor-2 (VEGFR-2) that encodes a secreted form of the protein, designated endogenous soluble VEGFR-2 (esVEGFR-2/KDR) has been described. The endogenous soluble esKDR inhibits developmental and reparative lymphangiogenesis by blocking VEGF-C function. Tissue-specific loss of esKDR in mice induced, at birth, spontaneous lymphatic invasion of the normally alymphatic cornea and hyperplasia of skin lymphatics without affecting blood vasculature. Administration of esKDR inhibited lymphangiogenesis but not hemangiogenesis induced by corneal suture injury or transplantation, enhanced corneal allograft survival and suppressed lymphangioma cellular proliferation. Naturally occurring esKDR thus acts as a molecular uncoupler of blood and lymphatic vessels; modulation of esKDR might have therapeutic effects in treating lymphatic vascular malformations, transplantation rejection and, potentially, tumor lymphangiogenesis and lymphedema. Recombinant mouse esFlk-1 generated by alternative splicing consists of the first 6 Ig-like loops followed by the unique C-terminal end: GMEASLGDRAMP.

References

1. Shibata et al, BMC Medicine 8 (2010)
2. Albaquerque et al, Nature Med 2009
3. Ebos et al, Mol Cancer Res 2 (2004)
4. Ebos et al, Cancer res 68 (2008).

Database References Antigen

Protein RefSeq:	ACJ66293.1
Uniprot ID:	P35918
mRNA RefSeq:	EU884114

Product Specifications

Species reactivity	mouse
Clone/Ab feature	rabbit IgG
Cross reactivity	ND
Host	rabbit
Clonality	polyclonal
Purification	Protein A purified
Immunogen	peptide: <i>GMEASLGDRAMP</i>
Formulation	lyophilized
Buffer	PBS, pH 7.2

Stability: The lyophilized antibody is stable at room temperature for up to 1 month. The reconstituted antibody is stable for at least two weeks at 2-8°C. Frozen aliquots are stable for at least 6 months when stored at -20°C.

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 1-5 µg/ml

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



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Handling/Applications

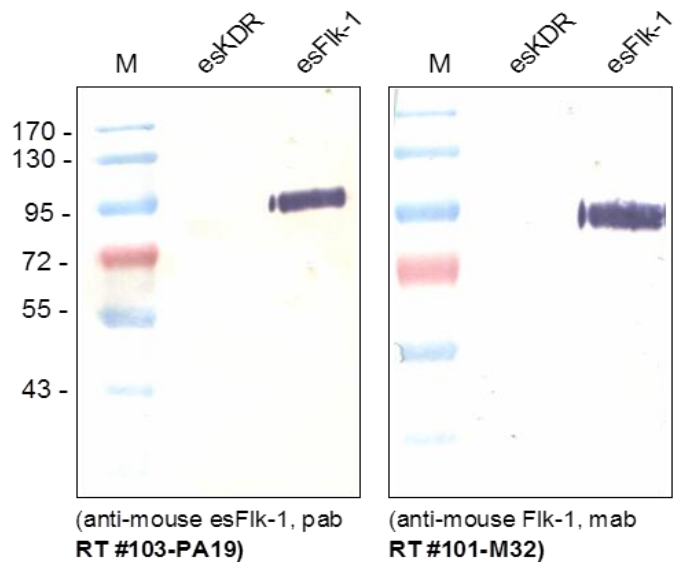


Figure 1: Recombinant mouse endogenous soluble VEGFR-2/Flk-1 (esFlk-1) was produced in insect cells. Western blot was performed using our mab against mouse esFlk-1 recognizing the soluble as well as the transmembrane form of Flk-1 and our new polyclonal antibody directed against the unique C-terminal end of the endogenous esFlk-1 (GMEASLGDRAMP) recognizing solely the endogenous form. There is no cross reactivity of both antibodies with human esKDR. The endogenous esFlk-1 generated by alternative splicing consists of the first 6 Ig-like loops.