

Product datasheet

Recombinant mouse VEGF Receptor 2 protein ab134453

2 Images

Description

<b>Product name</b>	Recombinant mouse VEGF Receptor 2 protein
<b>Biological activity</b>	ab134453 activity was measured by its ability to bind to immobilized recombinant Human VEGF165 in a functional ELISA.
<b>Purity</b>	> 95 % SDS-PAGE. ab134453 was determined to be > 95% pure by SDS-PAGE and silver stain. Endotoxin level:< 0.1 ng per ug of VEGF Receptor 2. Affinity purified.
<b>Expression system</b>	Insect cells
<b>Accession</b>	<a href="#">P35918</a>
<b>Protein length</b>	Protein fragment
<b>Animal free</b>	No
<b>Nature</b>	Recombinant
<b>Species</b>	Mouse

Sequence

MESKALLAVALWFCVETRAASVGLTGDFLHPPKLSLSTQKDI  
 LTILANTTLQ  
 ITCRGQRDLDWLWPNAQRDSEERVLVTECGGGDSIFCKT  
 LTIPRVVGNDD  
 GAYKCSYRDVDIASVYVYVRDYRSPFIASVSDQHGIVYTE  
 NKNKTVVI  
 PCRGISNLNLSLCARYPEKRFVPDGNRISWDSEIGFTLP  
 SYMISYAGMV  
 FCEAKINDEYQSIMYVVVGYRYDVLSPPEIELSAGEK  
 LVLNCTA  
 RTELNVGLDFTWHSPPSKSHHKKVNRDVKPFPGTVAKM  
 FLSTLTIESVT  
 KSDQGEYTCVASSGRMIKRNRTFVRVHTKPFIAFGSGMK  
 LVEATVGSQV  
 RIPVKYLSYPAPDIKWYRNGRPIESNYTMM/GDELTIMEVTE  
 RDAGNYTV  
 ILTNPISMEKQSHM/SLVVNVPPQIGEKALISPMDSYQYGT  
 MQTLTCTVY  
 ANPPLHHIQWYWQLEEACSYRPGQTSPYACKEWRHVED  
 FQGGNKIEVTKN  
 QYALIEGKNKTVSTLVIQAANVSALYKCEAINKAGRGGERVIS  
 FHVIRGPE

ITVQPAAQPTEQESVSLCTADRNTFENLTWYKLGTSQATS  
VHMGESLTPV  
CKNLDALWKLNGTMFSNSTNDILVAFQNASLQDQGDYVC  
SAQDKKTKKR HCLVKQLILGMEASLGDRAMP

**Predicted molecular weight** 105 kDa  
**Amino acids** 20 to 660  
**Additional sequence information** N-terminal sequence: ASVGLPGDFL

## Specifications

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Our [Abpromise guarantee](#) covers the use of **ab134453** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

**Applications** SDS-PAGE  
ELISA

**Form** Lyophilized

**Additional notes** Store at 4°C for not longer than 2 days.

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 esKDR generated by alternative splicing consist of the first 6 Ig-like loops followed by the unique C-terminal end: GMEASLGDRAMP.

## Preparation and Storage

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**Stability and Storage** Shipped at 4°C. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

Constituents: 0.58% Sodium chloride, 0.49% MES

This product is an active protein and may elicit a biological response in vivo, handle with caution.

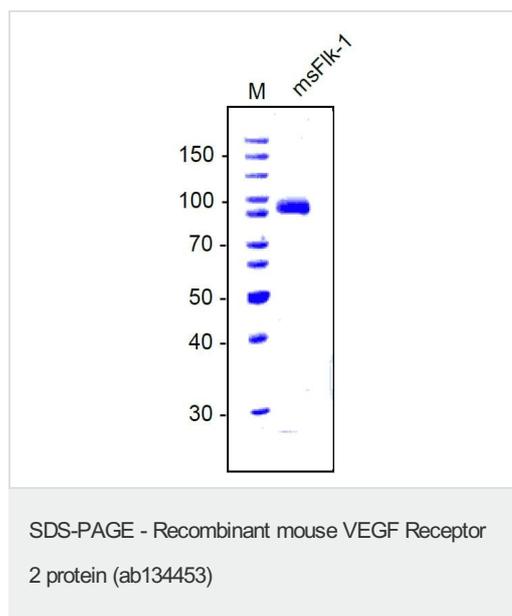
**Reconstitution** Lyophilized ab134453 is soluble in water and most aqueous buffers. It should be reconstituted in water or PBS to a concentration of not lower than 100µg/ml.

## General Info

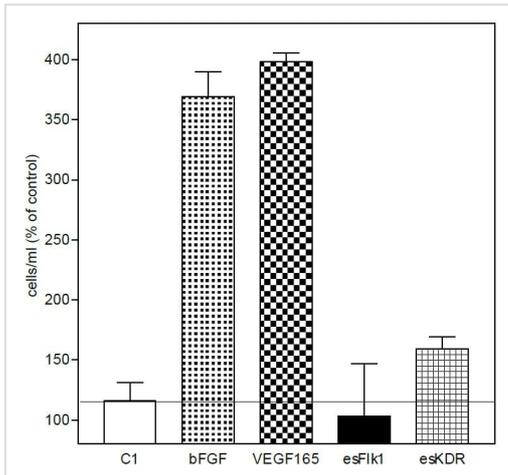
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<b>Function</b>	Receptor for VEGF or VEGFC. Has a tyrosine-protein kinase activity. The VEGF-kinase ligand/receptor signaling system plays a key role in vascular development and regulation of vascular permeability. In case of HIV-1 infection, the interaction with extracellular viral Tat protein seems to enhance angiogenesis in Kaposi's sarcoma lesions.
<b>Involvement in disease</b>	Defects in KDR are associated with susceptibility to hemangioma capillary infantile (HCI) [MIM:602089]. HCI are benign, highly proliferative lesions involving aberrant localized growth of capillary endothelium. They are the most common tumor of infancy, occurring in up to 10% of all births. Hemangiomas tend to appear shortly after birth and show rapid neonatal growth for up to 12 months characterized by endothelial hypercellularity and increased numbers of mast cells. This phase is followed by slow involution at a rate of about 10% per year and replacement by fibrofatty stroma.
<b>Sequence similarities</b>	Belongs to the protein kinase superfamily. Tyr protein kinase family. CSF-1/PDGF receptor subfamily. Contains 7 Ig-like C2-type (immunoglobulin-like) domains. Contains 1 protein kinase domain.
<b>Post-translational modifications</b>	Phosphorylated. Dephosphorylated by PTPRB. Dephosphorylated by PTPRJ at Tyr-951, Tyr-996, Tyr-1054, Tyr-1059, Tyr-1175 and Tyr-1214.
<b>Cellular localization</b>	Membrane.

## Images



SDS-PAGE analysis of recombinant mouse soluble VEGFR-1 produced in insect cells. Sample was loaded in 10% SDS-polyacrylamide gel under reducing condition and stained with Coomassie blue.



Inhibition of the VEGF 165-induced proliferation of HUVE cells by recombinant human and mouse endogenous sKDR and sFlk-1 HUVECs were stimulated with 10 ng/ml VEGF 165, both soluble receptors were added with a 100X excess.

Functional Studies - Recombinant mouse VEGF Receptor 2 protein (ab134453)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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