

VEGFR2 / Flk-1 / CD309 / KDR active protein

Recombinant Human VEGFR2 / Flk-1 / CD309 / KDR Protein (His tag)

CATALOG # AAA173577	HOST Human Cells
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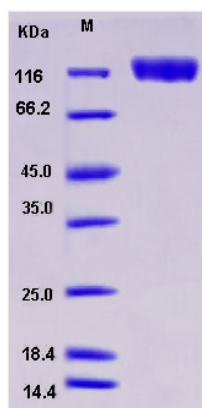
PRODUCT SYNONYMS

VEGFR2 / Flk-1 / CD309 / KDR; Recombinant Human VEGFR2 / Flk-1 / CD309 / KDR Protein (His tag); CD309; FLK1; VEGFR; VEGFR2; KDR; VEGFR2 / Flk-1 / CD309 / KDR active protein

PRODUCT SPECIFICATIONS

Host	Human Cells
Purity/Purification	> 97 % as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH 7.4, 7.5% mannitol.
Sequence Length	1356
Source	Human
Predicted N Terminal	Ala 20
Endotoxin	< 1.0 EU per ug of the protein as determined by the LAL method
Bio-Activity	1.- Using the Octet RED system, the affinity constant (Kd) of human VEGFR2-his bound to biotinylated human VEGF165 was 5.9 nM. 2.- Measured by its ability to inhibit the VEGF- dependent proliferation of human umbilical vein endothelial cells (HUVEC). The ED50 for this effect is typically 10-50 ug/mL in the presence of 10 ng/mL recombinant human VEGF165.
Reconstitution	It is recommended that sterile water (200 uL) be added to the vial to prepare a stock solution of 0.25 mg/mL. Concentration is measured by UV-Vis.
Stability	Samples are stable for up to twelve months from date of receipt at -70°C .
Preparation and Storage	Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquot and be used as soon as possible. Avoid repeated freeze- thaw cycles.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for VEGFR2 / Flk-1 / CD309 / KDR active protein

Background: VEGFR2, also called as KDR or Flk-1, is identified as the receptor for VEGF and VEGFC and an early marker for endothelial cell progenitors, whose expression is restricted to endothelial cells in vivo. VEGFR2 was shown to be the primary signal transducer for angiogenesis and the development of pathological conditions such as cancer and diabetic retinopathy. It has been shown that VEGFR2 is expressed mainly in the endothelial cells, and the expression is upregulated in the tumor vasculature. Thus the inhibition of VEGFR2 activity and its downstream signaling are important targets for the treatment of diseases involving angiogenesis. VEGFR2 transduces the major signals for angiogenesis via its strong tyrosine kinase activity. However, unlike other representative tyrosine kinase receptors, VEGFR2 does not use the Ras pathway as a major downstream signaling but rather uses the phospholipase C-protein kinase C pathway to signal mitogen-activated protein (MAP)-kinase activation and DNA synthesis. VEGFR2 is a direct and major signal transducer for pathological angiogenesis, including cancer and diabetic retinopathy, in cooperation with many other signaling partners; thus, VEGFR2 and its downstream signaling appear to be critical targets for the suppression of these diseases. VEGF and VEGFR2-mediated survival signaling is critical to endothelial cell survival, maintenance of the vasculature and alveolar structure and regeneration of lung tissue. Reduced VEGF and VEGFR2 expression in emphysematous lungs has been linked to increased endothelial cell death and vascular regression.

Description: A DNA sequence encoding the extracellular domain of human VEGFR2 (NP_002244.1) (Met 1-Glu 764) was fused with a polyhistidine tag at the C-terminus.

NCBI AND UNIPROT INFORMATION

NCBI GI #	11321597
NCBI GeneID	3791
NCBI Accession #	NP_002244.1
NCBI GenBank Nucleotide #	NM_002253.2
UniProt Accession #	P35968; O60723; Q14178; A2RRS0; B5A925; C5IFA0
NCBI Official Full Name	vascular endothelial growth factor receptor 2
NCBI Official Synonym Full Names	kinase insert domain receptor
NCBI Official Symbol	KDR
NCBI Official Synonym Symbols	FLK1; CD309; VEGFR; VEGFR2
NCBI Protein Information	vascular endothelial growth factor receptor 2
UniProt Protein Name	Vascular endothelial growth factor receptor 2
UniProt Gene Name	KDR
UniProt Synonym Gene Names	FLK1; VEGFR2; VEGFR-2; FLK-1; KDR

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/human-active-protein/vegfr2-flk-1-cd309-kdr/173577>