

## Active Recombinant Human KDR Protein, Fc-tagged, Alexa Fluor 647 conjugated

Cat. No. KDR-83HAF647 Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Alexa Fluor 647 conjugated recombinant human Soluble Kinase Insert Domain Receptor Fc fused with the Fc part of human IgG1 produced in baculovirus is a disulfide-linked homodimeric, glycosylated, polypeptide containing 757 amino acids and having a molecular mass of 160 kDa. The soluble receptor protein contains only the first 7 extracellular domains, which contain all the information necessary for ligand binding. The sKDR Fc Chimera is purified by proprietary chromatographic techniques.
<b>Species</b>	Human
<b>Source</b>	Insect Cells
<b>Description</b>	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. Differential splicing of the flt-1 gene leads to the formation of a secreted, soluble variant of VEGFR-1 (sVEGFR-1). No naturally occurring, secreted forms of VEGFR-2 have so far been reported. The binding of VEGF165 to VEGFR-2 is dependent on heparin.

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<b>Form</b>	Lyophilized
<b>Bio-activity</b>	The activity of sVEGFR-2/Fc was determined by its ability to inhibit the VEGF-dependent proliferation of human umbilical vein endothelial cells. The ED50 for this effect is typically 10-30 ng/ml.
<b>Purity</b>	> 90 % as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
<b>Characteristic</b>	Disulfide-linked homodimer Labeled with Alexa Fluor 647 via amines Excitation = 650 nm Emission = 668 nm
<b>Storage</b>	Lyophilized VEGFR-2 Fc/Chimera protein although stable at room temperature for 3 weeks, should be stored desiccated below -18 centigrade. Upon reconstitution FLK1 should be stored at 4 centigrade between 2-7 days and for future use below -18 centigrade. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.
<b>Storage Buffer</b>	KDR fusion protein was lyophilized from a concentrated (1 mg/mL) sterile solution containing 1 × PBS pH 7.4.
<b>Reconstitution</b>	It is recommended to reconstitute the lyophilized VEGFR2 in sterile water not less than 100 µg/mL, which can then be further diluted to other aqueous solutions.
<b>Conjugation</b>	Alexa Fluor 647
<b>GENE INFORMATION</b>	
<b>Gene Name</b>	KDR kinase insert domain receptor (a type III receptor tyrosine kinase) [ Homo sapiens ]

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<b>Official Symbol</b>	KDR
<b>Synonyms</b>	FLK1; CD309; VEGFR; VEGFR2; KDR; kinase insert domain receptor (a type III receptor tyrosine kinase); kinase insert domain receptor; soluble VEGFR2; fetal liver kinase-1; protein-tyrosine kinase receptor Flk-1; tyrosine kinase growth factor receptor; vascular endothelial growth factor receptor 2; EC 2.7.10.1; VEGFR-2
<b>Gene ID</b>	3791
<b>mRNA Refseq</b>	NM_002253
<b>Protein Refseq</b>	NP_002244
<b>MIM</b>	191306
<b>UniProt ID</b>	P35968

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