

Active Recombinant Human KDR Protein, Fc-tagged, Alexa Fluor 555 conjugated

Cat. No. KDR-83HAF555 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Alexa Fluor 555 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.
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Species	Human
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Source	Insect Cells
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Description	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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Form	Lyophilized
Bio-activity	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.
Purity	> 90 % as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Characteristic	Disulfide-linked homodimer Labeled with Alexa Fluor 555 via amines With an excitation and emission maximum of 555/565 nm, Alexa Fluor 555 can be efficiently excited using a 543 nm He-Ne laser line and detected under standard TRITC/Cy3 filters.
Storage	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.
Storage Buffer	KDR fusion protein was lyophilized from a concentrated (1 mg/mL) sterile solution containing 1 × PBS pH 7.4.
Reconstitution	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.
Conjugation	Alexa Fluor 555

GENE INFORMATION

Gene Name	KDR kinase insert domain receptor (a type III receptor tyrosine kinase) [Homo
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	sapiens]
Official Symbol	KDR
Synonyms	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
Gene ID	3791
mRNA Refseq	NM_002253
Protein Refseq	NP_002244
MIM	191306
UniProt ID	P35968

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