

# Active Recombinant Human KDR Protein, Fc-tagged, FITC conjugated

**Cat. No.** KDR-5442HF    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | FITC conjugated recombinant human KDR was fused with the Fc part of human IgG1. The recombinant mature KDR is a disulfide-linked homodimeric protein. The KDR monomers have a mass of approximately 160 kDa.                                                                                                                                                                                                                                       |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Source</b>           | Insect Cells                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Description</b>      | KDR 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 KDR 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 KDR have so far been reported. The binding of VEGF165 to KDR is dependent on heparin. |
| <b>Form</b>             | Lyophilized                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Bio-activity</b>     | The activity of KDR 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>Molecular Mass</b>   | 160 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Endotoxin</b>        | < 0.1 ng/ µg of KDR                                                                                                                                                                                                                                                                                                                                                                                                                                |

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|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>         | > 90 % by SDS-PAGE and analyzed by silver stain                                                                                                                                                         |
| <b>Characteristic</b> | Disulfide-linked homodimer<br>Labeled with FITC via amines<br>Excitation source: 488 nm spectral line, argon-ion laser<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 535 nm                  |
| <b>Storage</b>        | Lyophilized samples are stable for greater than six months at -20 to -70 centigrade.<br>Reconstituted KDR should be stored in working aliquots at -20 centigrade.<br>Avoid repeated freeze-thaw cycles. |
| <b>Reconstitution</b> | The lyophilized KDR is soluble in water and most aqueous buffers. The lyophilized KDR should be reconstituted in PBS or medium to a concentration not lower than 50 µg/mL.                              |
| <b>Conjugation</b>    | FITC                                                                                                                                                                                                    |

## GENE INFORMATION

|                        |                                                                                                                                                                                                                                                                                                                     |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | KDR kinase insert domain receptor (a type III receptor tyrosine kinase) [ Homo sapiens ]                                                                                                                                                                                                                            |
| <b>Official Symbol</b> | KDR                                                                                                                                                                                                                                                                                                                 |
| <b>Synonyms</b>        | KDR; kinase insert domain receptor (a type III receptor tyrosine kinase); FLK1; CD309; VEGFR; VEGFR2; vascular endothelial growth factor receptor 2; soluble VEGFR2; OTTHUMP00000158928; fetal liver kinase 1; fetal liver kinase-1; protein-tyrosine kinase receptor Flk-1; tyrosine kinase growth factor receptor |
| <b>Gene ID</b>         | 3791                                                                                                                                                                                                                                                                                                                |

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|----------------|-----------|
| mRNA Refseq    | NM_002253 |
| Protein Refseq | NP_002244 |
| MIM            | 191306    |
| UniProt ID     | P35968    |

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