

## Active Recombinant Human KDR Protein, Fc-tagged, Alexa Fluor 488 conjugated

**Cat. No.** KDR-5442HAF488    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| <b>Product Overview</b> | Alexa Fluor 488 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                                                                                                                                                                                                                                                                                                                                                                                                                                |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

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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 Alexa Fluor 488 via amines<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 515-545 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>      | Alexa Fluor 488                                                                                                                                                                                                                                                                                                     |
| <b>GENE INFORMATION</b> |                                                                                                                                                                                                                                                                                                                     |
| <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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