

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

**Cat. No.** KDR-5442HAF647    **Lot. No.** (See product label)

## SPECIFICATION

|                         |  |
|-------------------------|--|
| <b>Product Overview</b> | Alexa Fluor 647 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 Alexa Fluor 647 via amines<br>Excitation = 650 nm<br>Emission = 668 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 647   |

## GENE INFORMATION

|                        |   |
|------------------------|---|
| <b>Gene Name</b>       | <a href="#">KDR kinase insert domain receptor (a type III receptor tyrosine kinase) [ Homo sapiens ]</a>  |
| <b>Official Symbol</b> | <a href="#">KDR</a>   |
| <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>         | <a href="#">3791</a>  |

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|-----------------------|-----------|
| <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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