

# Recombinant Mouse Kdr Protein, mmFc-tagged, Alexa Fluor 488 conjugated

**Cat. No.** Kdr-8115MAF488    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| <b>Product Overview</b> | Alexa Fluor 488 conjugated Mouse VEGF R2, mouse IgG2a Fc Tag is expressed from human 293 cells (HEK293). It contains AA Ala 20 - Glu 762 (Accession # P35918-1).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Species</b>          | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>ProteinLength</b>    | Ala20-Glu762                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Description</b>      | Kinase insert domain receptor (KDR) is also known as CD309, FLK1, VEGFR, VEGFR2, and is one of the subtypes of VEGFR. VEGF receptors are receptors for vascular endothelial growth factor (VEGF). There are three main subtypes of VEGFR, numbered 1, 2 and 3. The VEGF receptors have an extracellular portion consisting of 7 immunoglobulin-like domains, a single transmembrane spanning region and an intracellular portion containing a split tyrosine-kinase domain. VEGF-A binds to VEGFR-1 (Flt-1) and VEGFR-2 (KDR/Flk-1). VEGFR-2 appears to mediate almost all of the known cellular responses to VEGF. The function of VEGFR-1 is less well defined, although it is thought to modulate VEGFR-2 signaling. Another function of VEGFR-1 may be to act as a dummy/decoy receptor, sequestering VEGF from VEGFR-2 binding (this appears to be particularly important during vasculogenesis in the embryo). In addition, VEGFR2 is able to interact with HIV-1 extracellular Tat protein upon VEGF activation, and seems to enhance angiogenesis in Kaposi's |

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|                                     |                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                     | sarcoma lesions.                                                                                                                                                                                                                                                                                                                        |
| <b>Form</b>                         | Lyophilized                                                                                                                                                                                                                                                                                                                             |
| <b>Molecular Mass</b>               | This protein carries a mouse IgG2a Fc tag at the C-terminus. The protein has a calculated MW of 110.1 kDa. The protein migrates as 120-135 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.                                                                                                                            |
| <b>N-terminal Sequence Analysis</b> | Ala 20                                                                                                                                                                                                                                                                                                                                  |
| <b>Endotoxin</b>                    | < 1.0 EU/ µg by the LAL method.                                                                                                                                                                                                                                                                                                         |
| <b>Purity</b>                       | > 95 % as determined by SDS-PAGE                                                                                                                                                                                                                                                                                                        |
| <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>                      | For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower.<br>Please avoid repeated freeze-thaw cycles.<br>No activity loss is observed after storage at:<br>4-8 centigrade for 12 months in lyophilized state;<br>-70 centigrade for 3 months under sterile conditions after reconstitution. |
| <b>Storage Buffer</b>               | Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 100 mM Glycine, pH7.5, 10% trehalose.                                                                                                                                                                                                                                         |
| <b>Reconstitution</b>               | It is recommended that sterile water be added to the vial to prepare a stock solution of                                                                                                                                                                                                                                                |

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0.2 µg/µL. Centrifuge the vial at 4 centigrade before opening to recover the entire contents.

**Conjugation** Alexa Fluor 488

## GENE INFORMATION

**Gene Name** [Kdr kinase insert domain protein receptor \[ Mus musculus \(house mouse\) \]](#)

**Official Symbol** [Kdr](#)

**Synonyms** orv; Flk1; Ly73; Flk-1; Krd-1; VEGFR2; VEGFR-2; sVEGFR-2; 6130401C07; VEGF receptor-2; fetal liver kinase 1; kinase NYK; protein-tyrosine kinase receptor flk-1; soluble vascular endothelial growth factor receptor 2; vascular endothelial growth factor receptor-3; vascular endothelial growth factor receptor 2

**Gene ID** [16542](#)

**mRNA Refseq** [NM\\_010612](#)

**Protein Refseq** [NP\\_034742](#)

**UniProt ID** [Q8VCD0](#)

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