

## VEGFR2/KDR Active Protein | KDR active protein

VEGFR2/KDR Protein, Mouse, Recombinant (hFc Tag)

CATALOG #  
**AAA258218**

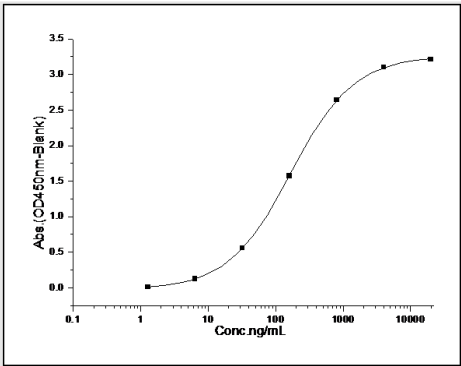
HOST  
**HEK293 Cells**

### PRODUCT SYNONYMS

VEGFR2/KDR; VEGFR2/KDR Protein; Mouse; Recombinant (hFc Tag); Mouse VEGFR2/Flk-1/CD309/KDR Protein (Fc Tag); 6130401C07 Protein; Flk-1 Protein; Flk1 Protein; Krd-1 Protein; Ly73 Protein; sVEGFR-2 Protein; VEGFR-2 Protein; VEGFR2 Protein; kinase insert domain receptor; KDR active protein

### PRODUCT SPECIFICATIONS

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                    | HEK293 Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Purity/Purification     | >90% as determined by SDS-PAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Form/Format             | Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.                                                                                                                                                                                                                                                                                                      |
| Sequence                | Met1-Glu76 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Species                 | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Endotoxin               | <1.0EU per ug of the protein as determined by the LAL method                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Predicted N Terminal    | Ala 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Tag                     | C-human IgG1-Fc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Protein Construction    | A DNA sequence encoding the mouse KDR (P35918)(Met1-Glu762) was expressed, fused with the Fc region of human IgG1 at the C-terminus.                                                                                                                                                                                                                                                                                                                                                                                    |
| Reconstitution          | A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.                                                                                                                                                                                                                                                                                                                                                                                         |
| Activity                | Immobilized mouse VEGF164 at 10ug/ml (100uL/well) can bind mouse KDR-Fc. The EC50 of mouse KDR-Fc is 0.11-0.27ug/ml.                                                                                                                                                                                                                                                                                                                                                                                                    |
| Preparation and Storage | <p>Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.</p> <p>In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid.</p> <p>They are shipped out with blue ice.</p> |



SDS-PAGE

**Application Data**  
Immobilized mouse VEGF164 at 10 ug/ml (100 ul/well) can bind mouse KDR-Fc, The EC50 of mouse KDR-Fc is 0.11-0.27 ug/ml.

ADDITIONAL INFORMATION

|                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for KDR active protein | Background: VEGFR2 also called KDR or Flk-1, is identified as the receptor for VEGF and VEGFC and an early marker for endothelial cell progenitors, whose expression is restricted to endothelial cells in vivo. VEGFR2 was shown to be the primary signal transducer for angiogenesis and the development of pathological conditions such as cancer and diabetic retinopathy. It has been shown that VEGFR2 is expressed mainly in the endothelial cells, and the expression is upregulated in the tumor vasculature. Thus the inhibition of VEGFR2 activity and its downstream signaling are important targets for the treatment of diseases involving angiogenesis. VEGFR2 transduces the major signals for angiogenesis via its strong tyrosine kinase activity. However, unlike other representative tyrosine kinase receptors, VEGFR2 does not use the Ras pathway as major downstream signaling but rather uses the phospholipase C-protein kinase C pathway to signal mitogen-activated protein (MAP)-kinase activation and DNA synthesis. VEGFR2 is a direct and major signal transducer for pathological angiogenesis, including cancer and diabetic retinopathy, in cooperation with many other signaling partners; thus, VEGFR2 and its downstream signaling appear to be critical targets for the suppression of these diseases. VEGF and VEGFR2-mediated survival signaling are critical to endothelial cell survival, maintenance of the vasculature and alveolar structure, and regeneration of lung tissue. Reduced VEGF and VEGFR2 expression in emphysematous lungs has been linked to increased endothelial cell death and vascular regression. |
| Product Categories/Family for KDR active protein   | Cancer Drug Targets Hemangioblast Markers Receptor Tyrosine Kinases (RTKs)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| References                                         | Shibuya M. (2006) Vascular endothelial growth factor (VEGF)-Receptor2: its biological functions, major signaling pathway, and specific ligand VEGF-E. Endothelium. 13(2): 63-9.<br>Marwick JA, et al. (2010) Cigarette smoke regulates VEGFR2-mediated survival signaling in rat lungs. J Inflamm (Lond). 7(1): 11.<br>Bruns AF, et al. (2010) Ligand-stimulated VEGFR2 signaling is regulated by co-ordinated trafficking and proteolysis. Traffic. 11(1): 161-74.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

NCBI AND UNIPROT INFORMATION

|                                  |                                                                 |
|----------------------------------|-----------------------------------------------------------------|
| NCBI GI #                        | 549321                                                          |
| NCBI GeneID                      | 16542                                                           |
| UniProt Accession #              | P35918; C5H7S5                                                  |
| Molecular Weight                 | 75,230 Da                                                       |
| NCBI Official Full Name          | Vascular endothelial growth factor receptor 2                   |
| NCBI Official Synonym Full Names | kinase insert domain protein receptor                           |
| NCBI Official Symbol             | Kdr                                                             |
| NCBI Official Synonym Symbols    | Flk1; Ly73; Flk-1; Krd-1; VEGFR2; VEGFR-2; sVEGFR-2; 6130401C07 |

|                                   |                                                                                                                                                                                                                                                                 |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>NCBI Protein Information</b>   | vascular endothelial growth factor receptor 2; kinase NYK; VEGF receptor-2; fetal liver kinase 1; protein-tyrosine kinase receptor flk-1; vascular endothelial growth factor receptor-2; vascular endothelial growth factor receptor-3; vascular endothelial gr |
| <b>UniProt Protein Name</b>       | Vascular endothelial growth factor receptor 2                                                                                                                                                                                                                   |
| <b>UniProt Gene Name</b>          | <b>Kdr</b>                                                                                                                                                                                                                                                      |
| <b>UniProt Synonym Gene Names</b> | Flk-1; Flk1; VEGFR-2; FLK-1                                                                                                                                                                                                                                     |
| <b>UniProt Entry Name</b>         | VGFR2_MOUSE                                                                                                                                                                                                                                                     |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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 Online datasheet: <https://stage.aaabiotech.com/hek293-cells-active-protein/vegfr2-kdr/258218>