

## VEGF165 active protein

Human VEGF165

|                              |                             |                            |
|------------------------------|-----------------------------|----------------------------|
| CATALOG #<br><b>AAA79220</b> | HOST<br><b>Insect Cells</b> | REACTIVITY<br><b>Human</b> |
|------------------------------|-----------------------------|----------------------------|

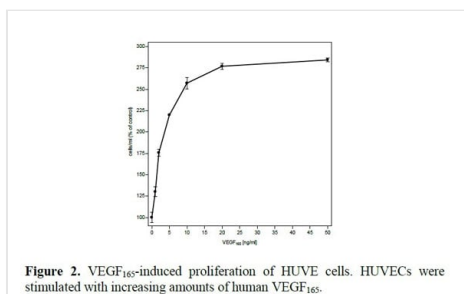
### PRODUCT SYNONYMS

VEGF165; Human VEGF165; Recombinant Human Vascular Endothelial Growth Factor165; VEGF-A; VPF; VEGF165 active protein

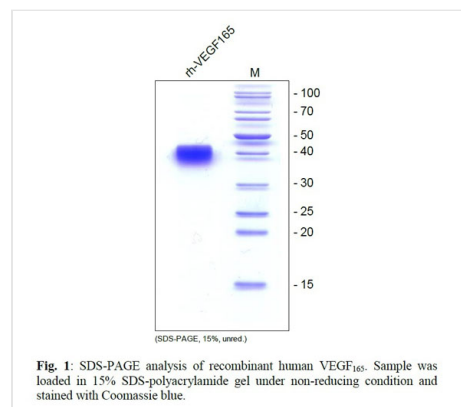
### PRODUCT SPECIFICATIONS

|                         |                                                                                                                                                                         |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                    | Insect Cells                                                                                                                                                            |
| Reactivity              | Human                                                                                                                                                                   |
| Purity/Purification     | > 95% by SDS-PAGE & silver stain                                                                                                                                        |
| Form/Format             | Lyophilized                                                                                                                                                             |
| Sequence                | N-Terminal Sequence: A PMAEGG                                                                                                                                           |
| Sequence Length         | 165                                                                                                                                                                     |
| N Terminal Sequence     | APMAEGG                                                                                                                                                                 |
| Buffer                  | 50 mM acetic acid                                                                                                                                                       |
| Preparation and Storage | Lyophilized samples are stable for greater than six months at -20 degree C to -70 degree C. Reconstituted VEGF165 should be stored in working aliquots at -20 degree C. |

### IMAGES



Application Data



Application Data

ADDITIONAL INFORMATION

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| Related Product Information for VEGF165 active protein | Human Vascular Endothelial Growth Factor VEGF165, a 23 kDa protein consisting of 165 amino acid residues, is produced as a homodimer. VEGF is a polypeptide growth factor and a member of the platelet-derived growth factor family. It is a specific mitogen for vascular endothelial cells and a strong angiogenic factor in vivo. Two high-affinity tyrosine kinase receptors for VEGF165 have been identified, VEGFR-1 (FLT-1), and VEGFR-2 (KDR). Consistent with the endothelial cell-specific action of VEGF165, expression of both receptor genes has been found predominantly but not exclusively on endothelial cells. Expression of VEGFR-1 was also found on human monocytes, neutrophils (PMNs), bovine brain pericytes and villous and extra villous trophoblast. In addition to its action as a mitogen it is a potent vascular permeability factor (VPF) in vivo. VEGF165 is also a chemo attractant molecule for monocytes and endothelial cells. 5 different proteins are generated by differential splicing: VEGF121, VEGF145, VEGF165, VEGF189 and VEGF206. The most abundant form is VEGF165. Whereas VEGF121 and VEGF165 are secreted proteins, VEGF145, VEGF189 and VEGF206 are strongly cell-associated. The isoforms VEGF145, VEGF165 and VEGF189 bind to heparin with high affinity. VEGF165 is apparently a homo-dimer, but preparations of VEGF165 show some heterogeneity on SDS gels, depending on the secretion of different glycosylation patterns. All dimeric forms have similar biological activities but their bioavailability is very different. There is good evidence that different cells and tissues express different VEGF isoforms. The other members of this increasing growth factor family are VEGF-B, -C, -D and -E. Another member is the Placenta growth factor PIGF |
| Product Categories/Family for VEGF165 active protein   | Cytokines & Growth Factors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| References                                             | 1. Breier et al., Dev 114:521, 1992 2. Fiebig et al., Eur J Biochem 211:19, 1993 3. Flamme et al., Dev Biol 162:699, 1995 4. Kremer at al., Cancer Res 57:3852, 1997                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

NCBI AND UNIPROT INFORMATION

|                                  |                                                                                                |
|----------------------------------|------------------------------------------------------------------------------------------------|
| NCBI GI #                        | 76781480                                                                                       |
| NCBI GeneID                      | 7422                                                                                           |
| NCBI Accession #                 | NP_001165097                                                                                   |
| NCBI GenBank Nucleotide #        | NM_001171626                                                                                   |
| UniProt Accession #              | P15692; O60720; O75875; Q074Z4; Q16889; Q5UB46; Q6P0P5; Q96KJ0; Q96L82; Q96NW5; Q9H1W8; B5BU86 |
| Molecular Weight                 | 45 kDa                                                                                         |
| NCBI Official Full Name          | vascular endothelial growth factor A isoform a                                                 |
| NCBI Official Synonym Full Names | vascular endothelial growth factor A                                                           |
| NCBI Official Symbol             | VEGFA                                                                                          |
| NCBI Official Synonym Symbols    | VPF; VEGF; MVCD1                                                                               |
| NCBI Protein Information         | vascular endothelial growth factor A; vascular permeability factor                             |
| UniProt Protein Name             | Vascular endothelial growth factor A                                                           |
| UniProt Gene Name                | VEGFA                                                                                          |
| UniProt Synonym Gene Names       | VEGF; VEGF-A; VPF                                                                              |
| UniProt Entry Name               | VEGFA_HUMAN                                                                                    |

**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.