

## Recombinant human VEGFA, Active, His-tagged

**Cat. No.** VEGFA-1569H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| <b>Product Overview</b> | Recombinant full length VEGF is a 38.2 kDa homodimeric protein consisting of two 165 amino acid polypeptide chains (amino acids 27-191 P15692-4 VEGFA_HUMA) with His tag at N-terminal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Source</b>           | Nicotiana Benthamiana                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>ProteinLength</b>    | 27-191 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Description</b>      | <p>Vascular endothelial growth factor is a member of the platelet-derived growth factor family. It is a specific mitogen for vascular endothelial cells in vitro and a strong angiogenic factor in vivo. Induces endothelial cell proliferation, promotes cell migration, inhibits apoptosis and induces permeabilization of blood vessels. Expressed in vascularized tissues, VEGF plays a prominent role in normal and pathological angiogenesis. In addition to its action as a mitogen it is a potent vascular permeabilityfactor (VPF) in vivo and is also a chemo attractant for monocytes cells. VEGF binds to the FLT1/VEGFR1 and KDR/VEGFR2 present on endothelial cells. Substantial evidence implicates VEGF in the induction of tumour metastasis by stimulating the production of matrix metalloproteinase (MMPs).</p> |
| <b>Form</b>             | Recombinant human VEGF is lyophilized from 10mM Phosphate Potassium buffer pH 7.5 and 100 mM NaCl.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Molecular Mass</b>   | 38.2 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

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|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AA Sequence</b>    | HHHHHHHHAPMAEGGGQNHHEVVKFMDVYQRSYCHPIETLVDIFQEYPDEIEYIFK<br>PSCVPLMRCGGCCNDEGLE CVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCE<br>CRPKKDRARQENPCGPCSERRKHLFVQDPQTCKCCKNT DSRCKARQLELNERT<br>CRCDKPRR                                                                                                                                                        |
| <b>Endotoxin</b>      | < 0.04 EU/μg protein (LAL)                                                                                                                                                                                                                                                                                                                        |
| <b>Purity</b>         | >97% by SDS-PAGE gel                                                                                                                                                                                                                                                                                                                              |
| <b>Storage</b>        | This lyophilized preparation is stable at 2-8o C for short term, long storage it should be kept at -20oC. Reconstituted protein should be stored in working aliquots at -20°C. Repeated freezing and thawing is not recommended.                                                                                                                  |
| <b>Reconstitution</b> | Centrifuge vial before opening. Lyophilized protein should be reconstituted in water to a concentration of 100 ng/μl. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. Optimal concentration should be determined for specific application and cell lines. |
| <b>Full Length</b>    | Full L.                                                                                                                                                                                                                                                                                                                                           |

## GENE INFORMATION

|                        |                                                                                                                                                           |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | VEGFA vascular endothelial growth factor A [ Homo sapiens ]                                                                                               |
| <b>Official Symbol</b> | VEGFA                                                                                                                                                     |
| <b>Synonyms</b>        | VEGFA; vascular endothelial growth factor A; vascular endothelial growth factor , VEGF; VEGF A; VPF; vascular permeability factor; VEGF; MVCD1; MGC70609; |
| <b>Gene ID</b>         | 7422                                                                                                                                                      |

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|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>mRNA Refseq</b>         | <a href="#">NM_001025366</a>                                                                                                                                                                                                                                                                                                                                  |
| <b>Protein Refseq</b>      | <a href="#">NP_001020537</a>                                                                                                                                                                                                                                                                                                                                  |
| <b>UniProt ID</b>          | <a href="#">P15692</a>                                                                                                                                                                                                                                                                                                                                        |
| <b>Chromosome Location</b> | 6p12                                                                                                                                                                                                                                                                                                                                                          |
| <b>Pathway</b>             | Bladder cancer, organism-specific biosystem; Bladder cancer, conserved biosystem; Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; Endochondral Ossification, organism-specific biosystem; Focal adhesion, organism-specific biosystem; Focal adhesion, conserved biosystem; |
| <b>Function</b>            | cell surface binding; chemoattractant activity; cytokine activity; cytokine activity; extracellular matrix binding; fibronectin binding; growth factor activity; growth factor activity; heparin binding; heparin binding; platelet-derived growth factor recep                                                                                               |