

## Active Recombinant Mouse Vegfa, Isoform 164, His-tagged, Biotinylated

**Cat. No.** Vegfa-727M    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                         |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Mouse VEGF164, also known as VEGF, is expressed as a 175-amino acid protein consisting of the region Ala27 - Arg190 of mouse VEGF (UniProt Accession #Q00731-2, isoform VEGF164) and a C-terminal His-tag. It contains 1 potential sites for N-linked glycosylation and exists as a dimer under non-reducing condition. |
| <b>Species</b>          | Mouse                                                                                                                                                                                                                                                                                                                   |
| <b>Source</b>           | Human Cells                                                                                                                                                                                                                                                                                                             |
| <b>ProteinLength</b>    | 27-190 a.a.                                                                                                                                                                                                                                                                                                             |
| <b>Form</b>             | Supplied at 0.5 mg/ml in sterile PBS pH7.4 (carrier & preservative free). The purified recombinant protein was labeled with Biotin (3-5 Biotin per molecule).                                                                                                                                                           |
| <b>Bio-activity</b>     | Binds its receptors (FLT1, KDR) and anti-VEGF monoclonal antibodies with high affinity (KD< 10 nM as measured by ELISA). Stimulates HUVEC (human umbilical vein endothelial cells) proliferation and certain tumor cell growth.                                                                                         |
| <b>Molecular Mass</b>   | Calculated molecular mass (kDa): 20.6; Estimated by SDS-PAGE under reducing condition (kDa): ~30 (probably due to glycosylation)                                                                                                                                                                                        |
| <b>AA Sequence</b>      | APTTEGEQKSHEVIKFMDVYQRSYCRPIETLVDIFQEYPDEIEYIFKPSCVPLMRCAG<br>CCNDEALECVPTSESN ITMQIMRIKPHQSQHIGEMSFLQHSRCECRPKKDRTPEN<br>HCEPCSEERRKHLFVQDPQTCKCSCKNTDSRCKAR QLELNERTCRCDKPRRSTGH                                                                                                                                      |

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|                    |                                                                                                                                                                                                                                                                                                                                                     |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | HHHHHHH                                                                                                                                                                                                                                                                                                                                             |
| <b>Endotoxin</b>   | <0.1 eu="" per="" 1="" μg="" of="" purified="" recombinant="" protein="" determined="" by="" the="" lal="">                                                                                                                                                                                                                                         |
| <b>Purity</b>      | >95% judged by SDS-PAGE under reducing condition                                                                                                                                                                                                                                                                                                    |
| <b>Storage</b>     | The product is shipped at 4°C. Upon receipt, centrifuge the product briefly before opening the vial. It is recommended to store small aliquots at the temperature below –20°C for long-term storage and the product is stable for 3 months. The undiluted protein can be stored at 4°C for no more than 2 weeks. Avoid repeated freeze-thaw cycles. |
| <b>Conjugation</b> | Biotin                                                                                                                                                                                                                                                                                                                                              |

## GENE INFORMATION

|                        |                                                                                                                  |
|------------------------|------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | Vegfa vascular endothelial growth factor A [ Mus musculus ]                                                      |
| <b>Official Symbol</b> | Vegfa                                                                                                            |
| <b>Synonyms</b>        | VEGFA; vascular endothelial growth factor A; vascular permeability factor; Vpf; Vegf; Vegf120; Vegf164; Vegf188; |
| <b>Gene ID</b>         | 22339                                                                                                            |
| <b>mRNA Refseq</b>     | NM_001025250                                                                                                     |
| <b>Protein Refseq</b>  | NP_001020421                                                                                                     |
| <b>MIM</b>             |                                                                                                                  |

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**UniProt ID****Pathway**

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, organism-specific biosystem;

**Function**

cell surface binding; chemoattractant activity; cytokine activity; fibronectin binding; growth factor activity; heparin binding; platelet-derived growth factor receptor binding; protein heterodimerization activity; protein homodimerization activity; receptor agonist activity; vascular endothelial growth factor receptor 1 binding; vascular endothelial growth factor receptor 2 binding; vascular endothelial growth factor receptor binding;

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