

## Recombinant Murine Vascular Endothelial Growth Factor 164

#R00266

Size: 10 µg/100 µg/500 µg

### Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.



**Warning:** This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

### Background

Vascular Endothelial Growth Factor is a sub-family of growth factors produced by cells, which stimulates vasculogenesis and angiogenesis. VEGF's normal function is to create new blood vessels during embryonic development, new blood vessels after injury, muscle following exercise, and new vessels (collateral circulation) to bypass blocked vessels. Mouse and rat express alternately spliced isoforms of 120, 164, and 188 amino acids (a.a.) in length. Recombinant mouse VEGF165 contains 165 amino acids residues (with a met at N-terminal) and it is a disulfide-linked homodimer. In addition, it shares 97 % a.a. sequence identity with corresponding regions of rat, 89 % with human and porcine, 88 % with bovine, and 90 % with feline, equine and canine VEGF, respectively.

### AA Sequence

MAPTTEGEQKSHEVIKFMDVYQRSYCRPIETLVDIFQ

EYPDEIEYIFKPSCVPLMRCAGCCNDEALECVPTSES  
NITMQIMRIKPHQSQHIGEMSFLQHSRCECRPKKDRT  
KPEKHCEPCSERRKHLFVQDPQTCKCSCKNTDSRC  
KARQLELNERTCRCDKPRR

### Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

### Product Specification

|                            |                                                                                                                                                                                          |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Synonyms</b>            | Vascular Endothelial Growth Factor Isoform 164                                                                                                                                           |
| <b>Accession</b>           | Q00731                                                                                                                                                                                   |
| <b>Unigene</b>             | Mm.282184.                                                                                                                                                                               |
| <b>Species</b>             | Murine                                                                                                                                                                                   |
| <b>Source</b>              | Escherichia coli.                                                                                                                                                                        |
| <b>Molecular Weight</b>    | Approximately 38.8 kDa, a disulfide-linked homodimeric protein consisting of two 165 amino acid polypeptide chains with Met at N-terminus.                                               |
| <b>Purity</b>              | > 90 % by SDS-PAGE analyse.                                                                                                                                                              |
| <b>Biological Activity</b> | Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by a cell proliferation assay using human umbilical vein endothelial cells(HUVEC) is less than 5 |

|                     |                                                                           |
|---------------------|---------------------------------------------------------------------------|
|                     | ng/ml, corresponding to a specific activity of $> 2.0 \times 10^5$ IU/mg. |
| Physical Appearance | Sterile Filtered White lyophilized (freeze-dried) powder.                 |
| Formulation         | Lyophilized from a 0.2 $\mu$ m filtered solution in PBS, pH 7.4.          |
| Endotoxin           | Less than 1 EU/ $\mu$ g of rMuVEGF164 as determined by LAL method.        |