

# Recombinant Rat Vascular Endothelial Growth Factor <sub>164</sub> (rRtVEGF<sub>164</sub>)

## PrimeGene Technical Data Sheet

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<b>Catalog Number:</b>	145-07
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 38.7 kDa, a disulfide-linked homodimeric protein, consisting of two 165 amino acid polypeptide chains with Met at N-terminus.
<b>Quantity:</b>	2μg/10μg/1000μg
<b>AA Sequence:</b>	MAPTTEGEQK AHEVVVKFMDV YQRSYCRPIE TLVDIFQEYP DEIEYIFKPS CVPLMRCAGC CNDEALECVP TSESNVTMQI MRIKPHQSQH IGEMSFLQHS RCECRPKKDR TKPEKHCEPC SERRKHLFVQ DPQTCKCCK NTDSRCKARQ LELNERTCRC DKPRR
<b>Purity:</b>	> 95 % by SDS-PAGE and HPLC analyses.
<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 × 10 <sup>5</sup> IU/mg.
<b>Physical Appearance:</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Formulation:</b>	Lyophilized from a 0.2 μm filtered concentrated solution in 20 mM Tris, 300 mM NaCl, pH 8.8.
<b>Endotoxin:</b>	Less than 1 EU/μg of rRtVEGF <sub>164</sub> as determined by LAL method.
<b>Reconstitution:</b>	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.
<b>Shipping:</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage:</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"><li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li><li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li><li>● 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li></ul>
<b>Usage:</b>	This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further evaluation purposes. <b>NOT FOR HUMAN USE.</b>

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### ***Rat Vascular Endothelial Growth Factor <sub>164</sub>***

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 Rat VEGF<sub>164</sub> contains 165 amino acids residues and it is a disulfide-linked homodimer. In addition, it shares 97 % a.a. sequence identity with corresponding regions of mouse, 88 % with human and bovine, 89 % with porcine and canine, and 90 % with feline and equine VEGF, respectively.