

# Recombinant Rat Vascular Endothelial Growth Factor 164

## (Rat VEGF164)

### Product Information

Product Name	Cat#	Size
Recombinant Rat Vascular Endothelial Growth Factor 164 (Rat VEGF164)	91512ES10	10 µg
	91512ES60	100 µg
	91512ES76	500 µg

### Product Description

Vascular endothelial growth factor (VEGF) is a highly specific mitogen for vascular endothelial cells. Five VEGF isoforms are generated as a result of alternative splicing from a single VEGF gene. These isoforms differ in their molecular mass and in biological properties such as their ability to bind to cell-surface heparan-sulfate proteoglycans. Mouse VEGF164 shares 97% aa sequence identity with corresponding regions of rat, 89% with human and porcine, 88% with bovine, and 90% with feline, equine and canine VEGF, respectively. During pathological neovascularization, both the absolute and relative expression levels for VEGF164 increased to a greater degree than during physiological neovascularization.

### Product Properties

<b>Synonyms</b>	Vascular Endothelial Growth Factor Isoform 164
<b>Accession</b>	P16612
<b>Unigene</b>	83785
<b>Source</b>	Yeast-derived rat VEGF164 protein, Ala27-Arg190 (N115K), with Met at N-terminus.
<b>Molecular Weight</b>	Approximately 25.7 kDa in SDS-PAGE under non-reducing conditions.
<b>AA Sequence</b>	MAPTTEGEQK AHEVVKFMDV YQRSYCRPIE TLVDIFQEYP DEIEYIFKPS CVPLMRCAGC CNDEALECVP TSESNVTMQI MRIKPHQSQH IGEMSFLQHS RCECRPKKDR TKPEKHCEPC SERRKHLFVQ DPQTCKCSCK NTDSRCKARQ LELNERTCRC DKPRR
<b>Tag</b>	None
<b>Physical Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Purity</b>	> 95% by SDS-PAGE and 90% by SEC-HPLC analyses.
<b>Biological Activity</b>	Measured in a cell proliferation assay using HUVEC human umbilical vein endothelial cells. The ED <sub>50</sub> for this effect is 0.75- 3.75 ng/mL. Fully biologically active when compared to standard.
<b>Endotoxin</b>	< 0.1 EU per 1µg of the protein by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4. We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom.
<b>Reconstitution</b>	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.

### Shipping and Storage

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

## **Cautions**

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only!