



# VEGF-A Recombinant Protein

Cat. No.: 92-494



## Ψ Specifications

<b>SPECIES:</b>	Rat
<b>SOURCE SPECIES:</b>	P. pastoris
<b>SEQUENCE:</b>	Ala27-Arg190
<b>FUSION TAG:</b>	Tag Free
<b>TESTED APPLICATIONS:</b>	
<b>APPLICATIONS:</b>	This recombinant protein can be used for biological assays. For research use only.
<b>PREDICTED MOLECULAR WEIGHT:</b>	19.2 kD

## Ψ Properties

<b>PURITY:</b>	Greater than 95% as determined by reducing SDS-PAGE. Endotoxin level less than 0.1 ng/ug (1 IEU/ug) as determined by LAL test.
<b>PHYSICAL STATE:</b>	Lyophilized
<b>BUFFER:</b>	Lyophilized from a 0.2 um filtered solution of PBS, pH 7.4. It is not recommended to reconstitute to a concentration less than 100 ug/ml. Dissolve the lyophilized protein in ddH2O.

<b>STORAGE CONDITIONS:</b>	Lyophilized protein should be stored at -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at -20°C for 3 months.
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## Ψ Additional Info

<b>OFFICIAL SYMBOL:</b>	Vegfa
<b>ALTERNATE NAMES:</b>	Vascular endothelial growth factor A, Vascular permeability factor, VEGF/VEGF-A/VPF, VEGF 164
<b>ACCESSION NO.:</b>	P16612-2
<b>PROTEIN GI NO.:</b>	530394832
<b>GENE ID:</b>	83785

## Ψ Background and References

<b>BACKGROUND:</b>	Vascular endothelial growth factor (VEGF/VEGF-A ) is originally known as vascular permeability factor (VPF). It belongs to the PDGF family with a cysteine-knot structure comprised of eight conserved cysteine residues, and reckoned as a potent mediator in the process of angiogenesis and vasculogenesis in either fetus or adult. VEGF is particularly expressed in supraoptic , paraventricular nuclei and the choroid plexus of the pituitary, and abundant in the corpus luteum of the ovary and in kidney glomeruli. The rat VEGF protein contains a putative 20 amino acids (aa) signal peptide, and alternative splicing of rat VEGF gene produces isoforms of 120, 144, 164 and 188 aa. Rat VEGF164 respectively displays 97% and 88% aa identity with that regions of mouse and human VEGF. VEGF can bind to the FLT1/VEGFR1 and KDR/VEGFR2 receptors, heparan sulfate and heparin, and play important roles in inducing endothelial cell proliferation, promoting cell migration, inhibiting apoptosis and inducing permeabilization of blood vessels.
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