

VEGF164 Protein, Rat, Recombinant

General Information

Synonyms:	vascular endothelial growth factor A
Protein Construction:	A DNA sequence encoding the rat VEGF 164 isoform (AAA41211.1) (Met 1-Arg 190) was expressed. Predicted N terminal: Ala 27
Species:	Rat
Expression Host:	Baculovirus Insect Cells
Accession:	P16612-2
Molecular Weight:	19.2 kDa (predicted); 25 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Measured in a cell proliferation assay using human umbilical vein endothelial cells (HUVEC). The ED50 for this effect is typically 1-10 ng/ml.
Purity:	> 86 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 100 mM Glycine, 10 mM NaCl, pH 7.0. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:	Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.
Stability & Storage:	It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots. <small>Actual storage temperature shall be subject to the COA.</small>
Shipping:	In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Vascular endothelial growth factor (VEGF), also known as vascular permeability factor (VPF) and VEGF-A, is a potent mediator of both angiogenesis and vasculogenesis in the fetus and adult. It is a member of the platelet-derived growth factor (PDGF)/vascular endothelial growth factor (VEGF) family and often exists as a disulfide-linked homodimer. VEGF-A protein is a glycosylated mitogen that specifically acts on endothelial cells and has various effects, including mediating increased vascular permeability, inducing angiogenesis, vasculogenesis and

endothelial cell growth, promoting cell migration, inhibiting apoptosis and tumor growth. VEGF-A protein is also a vasodilator that increases microvascular permeability, thus it was originally referred to as vascular permeability factor. Cancer Immunotherapy Immune Checkpoint Immunotherapy Targeted Therapy

Reference

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