



# Recombinant Protein Technical Manual

## Recombinant Mouse VEGF-A/VEGF164 Protein

RPES3678

### Product Data:

**Product SKU:** RPES3678

**Size:** 10µg

**Species:** Mouse

**Expression host:** P. pastoris

**Uniprot:** Q00731-2

### Protein Information:

**Molecular Mass:** 19.3 kDa

**AP Molecular Mass:** 20 kDa

**Tag:**

**Bio-activity:**

**Purity:** > 95 % as determined by SDS-PAGE

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Vascular endothelial growth factor A; VEGF-A; Vascular permeability factor; VPF; VEGFA; VEGFA164; VEGF164

## Immunogen Information:

**Sequence:** Ala27-Arg190

## Background:

Mouse Vascular endothelial growth factor (VEGF or VEGF-A), is a potent mediator of both angiogenesis and vasculogenesis in the fetus and adult. It is a member of the PDGF/VEGF growth factor family that is characterized by a cystine knot structure formed by eight conserved cysteine residues. Alternately spliced isoforms of 120, 164 and 188 aa found in mouse. VEGF binds the type I transmembrane receptor tyrosine kinases VEGF R1 (also called Flt) and VEGF R2 (Flk-/KDR) on endothelial cells. Although affinity is highest for binding to VEGF R1, VEGF R2 appears to be the primary mediator of VEGF angiogenic activity. VEGF is required during embryogenesis to regulate the proliferation, migration, and survival of endothelial cells. It may play a role in increasing vascular permeability during lactation, when increased transport of molecules from the blood is required for efficient milk protein synthesis.