

Recombinant Rat VEGF-A/VEGF164 Protein

Catalog Number: PKSR030421

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

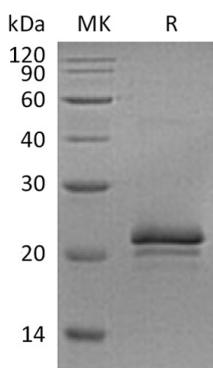
Description

Species	Rat
Source	P.Pichia-derived Rat VEGF-A/VEGF164 protein Ala27-Arg190(Ala36Thr)
Calculated MW	19.2 kDa
Observed MW	18-23 kDa
Accession	P16612-2
Bio-activity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, 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. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Reconstitution	Please refer to the specific buffer information in the printed manual. Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

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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