

Product datasheet for **AP26032PU-L**

VEGFB (VEGF-B167) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	Western blot: 2-5 µg/ml.
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Highly pure (>95%) recombinant human VEGF-B167 (Ala21-Arg188) derived from E. coli
Specificity:	This antibody detects VEGF-B.
Formulation:	PBS, pH 7.2 State: Purified State: Lyophilized Ig fraction
Reconstitution Method:	Centrifuge vial prior to opening. Reconstitute in sterile water to a concentration of 0.1-1.0 mg/ml.
Purification:	Protein-A purified
Conjugation:	Unconjugated
Storage:	The lyophilized antibody is stable at room temperature for up to 1 month. Following reconstitution antibody can be stored at 2-8 °C for up to two weeks or (in aliquots) at -20 °C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	vascular endothelial growth factor B
Database Link:	Entrez Gene 7423 Human P49765



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Background:

Vascular endothelial growth factor B (VEGF-B), also known as vascular endothelial growth factor-related factor (VRF), is a member of the VEGF family of growth factors that share structural and functional similarity (1, 2). Five mammalian members, including VEGF-A, B, C, D and PlGF, have been identified. VEGF family members are disulfide-linked dimeric proteins that are important regulators of physiological and pathological vasculogenesis, angiogenesis and lymphangiogenesis. VEGF-B is expressed in most tissues, especially in heart, skeletal muscle and pancreas. In many tissues, VEGF-B is coexpressed and can heterodimerize with VEGF (3). By alternative splicing, two isoforms of mature VEGF-B containing 167 or 186 amino acid (aa) residues exist (3, 4). The two VEGF-B isoforms have identical amino-terminal cysteine knot VEGF homology domains but the carboxyl end of VEGF-B167 differs from that of VEGF-B186 by the presence of a highly basic cysteine-rich heparin binding domain. Whereas VEGF-B186 is a secreted diffusible protein, VEGF-B167 is sequestered into the cell matrix after secretion. Both VEGF-B isoforms bind VEGF receptor 1 (VEGFR-1), but not VEGFR-2 or VEGFR-3 (5). On endothelial cells, ligation of VEGFR-1 by VEGF-B has been shown to regulate the expression and activity of urokinase type plasminogen activator and plasminogen activator inhibitor 1. VEGF-B167 and a proteolytically processed form of VEGF-B186 (VEGF-B127) also bind neuropilin1 (NP1), a type I transmembrane receptor for semaphorins/collapsins, ligands involved in neuron guidance (6). Besides VEGF-B, NP1 has been shown to bind PlGF-2, VEGF165 and VEGFR-1 (6, 7). The many interactions of NP1 with VEGF ligands and receptor suggest that NP1 may function as a regulator of angiogenesis (7).

Synonyms:

VEGFB, VRF, Vascular endothelial growth factor B, VEGF-related factor

Protein Families:

Druggable Genome, Secreted Protein

Protein Pathways:

Bladder cancer, Cytokine-cytokine receptor interaction, Focal adhesion, mTOR signaling pathway, Pancreatic cancer, Pathways in cancer, Renal cell carcinoma