

## Product datasheet for **AR60009PU-S**

### VEGF-A (Isoform 206) Human Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	VEGF-A (Isoform 206) human protein, 2 µg
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	APMAEGGGQN HHEVVKFMDV YQRSYCHPIE TLVDIFQEYP DEIEYIFKPS CVPLMRCGGC CNDEGLECVP TEESNITMQI MRIKPHQGGH IGEMSFLQHN KCECRPKKDR ARQEKKSVRG KGKGQKRRKK SRYKSWSVYV GARCCCLMPWS LPGPHPCGPC SERRKHLFVQ DPQTCKCSCCK NTDSRCKARQ LELNERTCRC DKPRR
Predicted MW:	47 kDa
Purity:	>98% by SDS-PAGE and visualised by silver staining
Buffer:	Presentation State: Purified State: Lyophilized purified protein Buffer System: 50 mM Acetic acid Stabilizer: None
Bioactivity:	Biological: Biological activity was tested by the induction of proliferation in human primary endothelial cells (HUVECs), stimulated with increasing amounts of human VEGF206 (see figure).
Reconstitution Method:	Restore in 50 mM Acetic acid to a concentration not lower than 50 µg/ml. For long term storage we recommend to add at least 0.1% human or bovine serum albumin.
Preparation:	Lyophilized purified protein
Protein Description:	Human VEGF206 is the largest isoform of Vegf-a (Uniprot ID: P15692-1) and a 47 kDa Dimer. <b><u>Result by N-terminal sequencing</u></b> APMAEGG
Note:	Protein RefSeq: NP_001165095 mRNA RefSeq: NM_001171624
Storage:	Store lyophilized at 2-8°C for 6 month or at -20°C long term. After reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C long term. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.



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<b>RefSeq:</b>	<a href="#">NP_001020537</a>
<b>Locus ID:</b>	7422
<b>UniProt ID:</b>	<a href="#">P15692</a>
<b>Cytogenetics:</b>	6p21.1
<b>Synonyms:</b>	VEGFA, VEGF, VPF, Vascular endothelial growth factor A, Vascular permeability factor
<b>Summary:</b>	<p>This gene is a member of the PDGF/VEGF growth factor family. It encodes a heparin-binding protein, which exists as a disulfide-linked homodimer. This growth factor induces proliferation and migration of vascular endothelial cells, and is essential for both physiological and pathological angiogenesis. Disruption of this gene in mice resulted in abnormal embryonic blood vessel formation. This gene is upregulated in many known tumors and its expression is correlated with tumor stage and progression. Elevated levels of this protein are found in patients with POEMS syndrome, also known as Crow-Fukase syndrome. Allelic variants of this gene have been associated with microvascular complications of diabetes 1 (MVCD1) and atherosclerosis. Alternatively spliced transcript variants encoding different isoforms have been described. There is also evidence for alternative translation initiation from upstream non-AUG (CUG) codons resulting in additional isoforms. A recent study showed that a C-terminally extended isoform is produced by use of an alternative in-frame translation termination codon via a stop codon readthrough mechanism, and that this isoform is antiangiogenic. Expression of some isoforms derived from the AUG start codon is regulated by a small upstream open reading frame, which is located within an internal ribosome entry site. The levels of VEGF are increased during infection with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), thus promoting inflammation by facilitating recruitment of inflammatory cells, and by increasing the level of angiotensin II (Ang II), one of two products of the SARS-CoV-2 binding target, angiotensin-converting enzyme 2 (ACE2). In turn, Ang II facilitates the elevation of VEGF, thus forming a vicious cycle in the release of inflammatory cytokines. [provided by RefSeq, Jun 2020]</p>
<b>Protein Families:</b>	Druggable Genome, Secreted Protein
<b>Protein Pathways:</b>	Bladder cancer, Cytokine-cytokine receptor interaction, Focal adhesion, mTOR signaling pathway, Pancreatic cancer, Pathways in cancer, Renal cell carcinoma, VEGF signaling pathway

## Product images:

