

VEGF165 active protein

Human VEGF165

CATALOG # AAA79212	HOST E Coli	REACTIVITY Human
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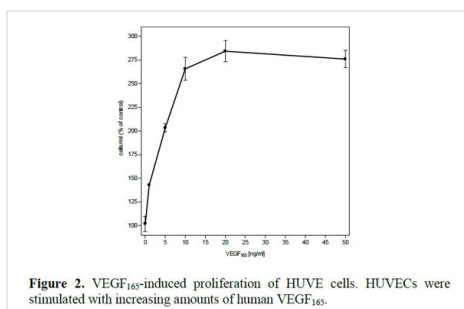
PRODUCT SYNONYMS

VEGF165; Human VEGF165; Recombinant Human Vascular Endothelial Growth Factor165; VEGF-A; VPF; VEGF165 active protein

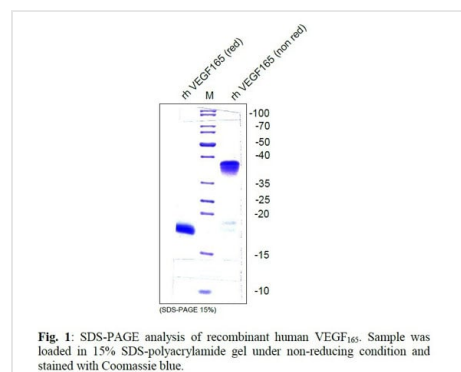
PRODUCT SPECIFICATIONS

Host	E Coli
Reactivity	Human
Purity/Purification	> 95% by SDS-PAGE & silver stain
Form/Format	Lyophilized
Sequence	N-Terminal Sequence: A PMAEGG
Sequence Length	412
N Terminal Sequence	APMAEGG
Biological Activity	The ED50 for stimulation of cell proliferation in human umbilical vein endothelial cells by VEGF165 has been determined to be in the range of 1-5 ng/ml.
Reconstitution	The lyophilized VEGF165 should be reconstituted in 50 mM acetic acid to a concentration not lower than 50 ug/ml. For long term storage we recommend to add at least 0.1% human or bovine serum albumin.
Preparation and Storage	Lyophilized samples are stable for greater than six months at -20 degree C to -70 degree C. Reconstituted VEGF165 should be stored in working aliquots at -20 degree C.

IMAGES



Application Data



Application Data

ADDITIONAL INFORMATION

Related Product Information for VEGF165 active protein	Human Vascular Endothelial Growth Factor VEGF165, a 23 kDa protein consisting of 165 amino acid residues, is produced as a homodimer. VEGF is a polypeptide growth factor and a member of the platelet-derived growth factor family. It is a specific mitogen for vascular endothelial cells and a strong angiogenic factor in vivo. Two high-affinity tyrosine kinase receptors for VEGF165 have been identified, VEGFR-1 (FLT-1), and VEGFR-2 (KDR). Consistent with the endothelial cell-specific action of VEGF165, expression of both receptor genes has been found predominantly but not exclusively on endothelial cells. Expression of VEGFR-1 was also found on human monocytes, neutrophils (PMNs), bovine brain pericytes and villous and extra villous trophoblast. In addition to its action as a mitogen it is a potent vascular permeability factor (VPF) in vivo. VEGF165 is also a chemo attractant molecule for monocytes and endothelial cells. 5 different proteins are generated by differential splicing: VEGF121, VEGF145, VEGF165, VEGF189 and VEGF206. The most abundant form is VEGF165. Whereas VEGF121 and VEGF165 are secreted proteins, VEGF145, VEGF189 and VEGF206 are strongly cell-associated. The isoforms VEGF145, VEGF165 and VEGF189 bind to heparin with high affinity. VEGF165 is apparently a homo-dimer, but preparations of VEGF165 show some heterogeneity on SDS gels, depending on the secretion of different glycosylation patterns. All dimeric forms have similar biological activities but their bioavailability is very different. There is good evidence that different cells and tissues express different VEGF isoforms. The other members of this increasing growth factor family are VEGF-B, -C, -D and -E. Another member is the Placenta growth factor PIGF.
Product Categories/Family for VEGF165 active protein	Cytokines & Growth Factors
References	1. Breier et al., Dev 114:521, 1992 2. Fiebig et al., Eur J Biochem 211:19, 1993 3. Flamme et al., Dev Biol 162:699, 1995 4. Kremer at al., Cancer Res 57:3852, 1997

NCBI AND UNIPROT INFORMATION

NCBI GI #	76781480
NCBI GeneID	7422
NCBI Accession #	NP_001165097
NCBI GenBank Nucleotide #	NM_001171626
UniProt Accession #	P15692; O60720; O75875; Q074Z4; Q16889; Q5UB46; Q6P0P5; Q96KJ0; Q96L82; Q96NW5; Q9H1W8; B5BU86
Molecular Weight	27,042 Da
NCBI Official Full Name	vascular endothelial growth factor A isoform a
NCBI Official Synonym Full Names	vascular endothelial growth factor A
NCBI Official Symbol	VEGFA
NCBI Official Synonym Symbols	VPF; VEGF; MVCD1
NCBI Protein Information	vascular endothelial growth factor A; vascular permeability factor
UniProt Protein Name	Vascular endothelial growth factor A
UniProt Gene Name	VEGFA
UniProt Synonym Gene Names	VEGF; VEGF-A; VPF
UniProt Entry Name	VEGFA_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.