

VEGF164 active protein

Rat VEGF164

CATALOG # AAA79293	HOST E Coli	REACTIVITY Rat
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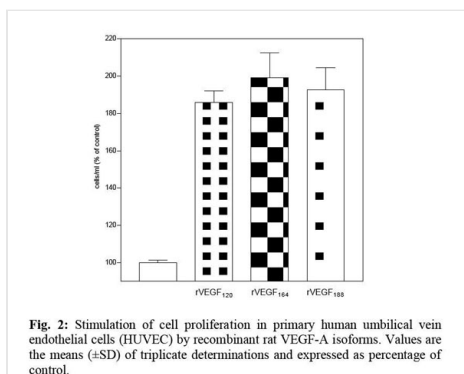
PRODUCT SYNONYMS

VEGF164; Rat VEGF164; Recombinant Rat Vascular Endothelial Growth Factor164; VEGF-A; VPF; VEGF164 active protein

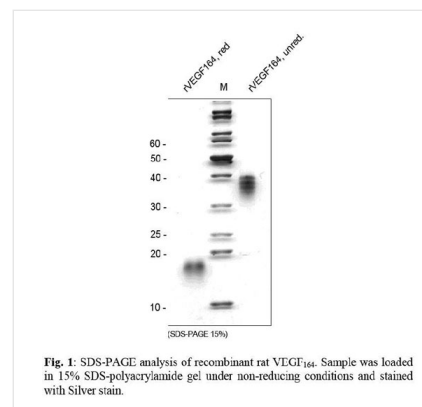
PRODUCT SPECIFICATIONS

Host	E Coli
Reactivity	Rat
Purity/Purification	>95%, by SDS-PAGE and silver stain
Form/Format	Freeze dried
Sequence	N-Terminal Sequence: APTTEGEQKAH
Sequence Length	164
N Terminal Sequence	APTTEGEQKAH
Buffer	PBS
Preparation and Storage	Lyophilized samples are stable for greater than six months at -20 degree C to -70 degree C. Reconstituted VEGF164 should be stored in working aliquots at -20 degree C

IMAGES



Application Data



Application Data

ADDITIONAL INFORMATION

Related Product Information for VEGF164 active protein	Rat Vascular Endothelial Growth Factor164 (VEGF164), a 19.23 kDa protein consisting of 164 amino acid residues, is produced as a homodimer. VEGF164 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 VEGF164 have been identified, VEGFR-1 (FLT-1), and VEGFR-2 (Flk-1). Consistent with the endothelial cell-specific action of VEGF120, 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 extravillous trophoblasts. In addition to its action as a mitogen it is a potent vascular permeability factor (VPF) in vivo and is also a chemo attractant for monocytes and endothelial cells. At least four different proteins are generated by differential splicing of the mouse VEGF gene: VEGF120, VEGF144, VEGF164 and VEGF188. The most abundant form is VEGF164. Whereas VEGF120, VEGF144 and VEGF164 are secreted proteins, VEGF188 is strongly cell-associated. In addition, the isoforms VEGF164 and VEGF188 bind to heparin with high affinity. All dimeric forms possess similar biological activities. A related protein of VEGF is placenta growth factor (PlGF) with about 53% homology and VEGF-B with similar biological activities. The full ORF of native rat VEGF164 (Ala27-Arg190) was cloned from total RNA of rat sinusoidal endothelial cells using standard protocols
Product Categories/Family for VEGF164 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 #	17380502
NCBI GeneID	83785
NCBI Accession #	NP_114024.2
NCBI GenBank Nucleotide #	NM_031836.2
UniProt Accession #	P16612; Q541S6; Q91ZE1; Q9JKX7; Q9QXG6; Q9QXG7
Molecular Weight	19,23
NCBI Official Full Name	Vascular endothelial growth factor A
NCBI Official Synonym Full Names	vascular endothelial growth factor A
NCBI Official Symbol	Vegfa
NCBI Official Synonym Symbols	VPF; Vegf; VEGF-A; VEGF164
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_RAT

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.