

Datasheet for ABIN1589588
VEGF121 Protein (Homodimer)



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Overview

Quantity:	5 µg
Target:	VEGF121
Protein Characteristics:	Homodimer
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Biological Activity:	Active

Product Details

Purpose:	VEGF121
Sequence:	APMAEGGGQN HHEVVKFMDV YQRSYCHPIE TLVDIFQEYP DEIEYIFKPS CVPLMRCGGC CNDEGLECVP TEESNITMQI MRIKPHQGQH IGEMSFLQHN KCECRPKKDR ARQEKCDKPR R
Specificity:	Chromosomal location:6p12
Characteristics:	Length (aa):121
Purity:	> 95 % by SDS-PAGE

Target Details

Target:	VEGF121
Alternative Name:	VEGF121 (VEGF121 Products)
Background:	Human Vascular Endothelial Growth Factor121 (VEGF121), a 18 kDa protein consisting of 121

Target Details

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 PlGF.

Synonyms: vascular endothelial growth factor A 121, VEGFA, VPF, VEGF, MVCD1,

Molecular Weight: 36 kDa

Gene ID: 7422

NCBI Accession: [NM_001025366](#), [NP_001020537](#)

UniProt: [P15692](#)

Application Details

Application Notes: Measured in a cell proliferation assay using primary HUVECs. The ED50 for this effect is typically 2 - 10 ng/mL.

Comment: Cytokines & Growth Factors

Restrictions: For Research Use only

Handling

Format: Lyophilized

Handling

Reconstitution:	The lyophilized VEGF121 should be reconstituted 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.
Buffer:	50 mM acetic acid
Storage:	-20 °C,-80 °C
Storage Comment:	Lyophilized samples are stable for greater than six months at -20°C to -70°C. Reconstituted VEGF121 should be stored in working aliquots at -20°C.
Expiry Date:	6 months