Datasheet for ABIN1589591

VEGF121 Protein (Homodimer)

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Overview

Quantity:	2 µg
Target:	VEGF121
Protein Characteristics:	Homodimer
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active

Product Details

Sequence:	APMAEGGGQN HHEVVKFMDV YQRSYCHPIE TLVDIFQEYP DEIEYIFKPS CVPLMRCGGC CNDEGLECVP TEESNITMQI MRIKPHQGQH IGEMSFLQHN KCECRPKKDR ARQEKCDKPR R
Characteristics:	Length (AA): 121 Chromosomal location: 6p12 Measured in a cell proliferation assay using primary HUVECs. The ED50 for this effect is typically 2-10 ng/mL.
Purity:	> 98 % by SDS-PAGE. Visualized by silver stain
Endotoxin Level:	< 0.1 ng per µg of VEGF121

Target Details

Target:	VEGF121
Alternative Name:	VEGF121 (VEGF121 Products)

Target Details

Background:	Human Vascular Endothelial Growth Factor121 (VEGF121), a 18 kDa protein consisting of 121 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 VEGF121 have been identified, VEGFR-1 (FLT-1), and VEGFR-2 (KDR). Consistent with the endothelial cell-specific action of VEGF121, 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 a chemoattractant molecule for monocytes and endothelial cells. Five 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. VEGF121 is apparently a homo-dimer, but preparations of VEGF show some heterogeneity on SDS gels depending on the secretion of different forms and the varying degrees of glycosylation. All dimeric forms posses' similar biological activities but the bioavailability is very different. There is good evidence that heterodimeric molecules between the different isoforms exist and that different cells and tissues express different VEGF isoforms. The other members of this increasing growth factor family are VEGF-B, -C, -D, -E and PlGF. Synonyms: Vascular Endothelial Growth Factor A, VEGFA, VPF, VEGF, MVCD1
Molecular Weight:	28.4 kDa
NCBI Accession:	NM_001171626, NP_001165097
UniProt:	P15692

Application Details

Comment:	Cytokines & Growth Factors
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	The lyophilized VEGF121 should be reconstituted in 50 mM acetic acid to a concentration not

Handling

	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
Handling Advice:	Avoid repeated freeze-thaw cycles.
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