Datasheet for ABIN1589577

VEGF189 Protein (Homodimer)

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Overview

Quantity:	2 µg
Target:	VEGF189
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 ARQEKKSVRG KGKGQKRKRK KSRYKSWSVP CGPCSERRKH LFVQDPQTCK CSCKNTDSRC KARQLELNER TCRCDKPRR
Characteristics:	Length (AA): 189 Chromosomal location: 6p12 Measured by the stimulation of cell proliferation in human umbilical vein endothelial cells in the range of 2-20 ng/mL.
Purity:	> 98 % by SDS-PAGE. Visualized by silver stain
Endotoxin Level:	< 0.1 ng per µg of human VEGF189

Target Details

Target:	VEGF189
Abstract:	VEGF189 Products
Background:	Human Vascular Endothelial Growth Factor VEGF189, a 21 kDa protein consisting of 189 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 vasular permeability factor (VPF) in vivo. VEGF165 is also a chemo attractant molecule for monocytes and endothelial cells. 5 different proteins are generated by diffential splicing: VEGF121, VEGF145, VEGF165, VEGF189 and VEGF206. The most abundant form is VEGF165. Where¬as 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 appa¬rently 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 bio¬availability is very different. There is good evidence that heterodimeric molecules between the different isoforms also exists and that different cells and tissues express different VEGF isoforms. The other members of this in¬creasing growth factor family are VEGF-B, -C, -D and -E. Another member is the Placenta growth factor PlGF. Synonyms: vascular endothelial growth factor A, VEGFA,VPF, VEGF, MVCD1
Molecular Weight:	42.0 kDa
NCBI Accession:	NM_001171626, NP_001165097
UniProt:	P15692

Application Details

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

Handling

Format:	Lyophilized

Handling

Reconstitution:	The lyophilized VEGF189 is soluble in water and most aqueous buffers. The lyophilized VEGF165 should be reconstituted in PBS or medium containing at least 0.1% human or bovine serum albumin to a concentration not lower than 50 µg/mL.
Buffer:	50 mM acetic acid
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-20 °C
Storage Comment:	The lyophilized protein is stable for a few weeks at room temperature, but best stored at -20 °C. Reconstituted VEGF189 should be stored in working aliquots at -20 °C.