Datasheet for ABIN1589786

VEGFC Protein (Cys152Ser-Mutant) (His tag)

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Overview

Quantity:	5 µg
Target:	VEGFC
Protein Characteristics:	Cys152Ser-Mutant
Origin:	Rat
Source:	Insect Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This VEGFC protein is labelled with His tag.

Product Details

Purpose:	VEGF-C152S
Sequence:	DTVKLAAAHY NTEILKSIDN EWRKTQCMPR EVCIDVGKEF GAATNTFFKP PSVSVYRCGG CCNSEGLQCM NTSTGYLSKT LFEITVPLSQ GPKPVTISFA NHTSCRCMSK LDVYRQVHSI IHHHHHH
Specificity:	Chromosomal location:16p11
Characteristics:	Length (aa):127
Purity:	> 90 % by SDS-PAGE

Target Details

Target:	VEGFC

Target Details

Alternative Name:	VEGF-C152S (VEGFC Products)
Background:	VEGF-C152S is a point mutant generated by the replacement of the second conserved Cys residue of the recombinant processed VEGF-C by a Ser residue. VEGF-C152S is analog to the human VEGF-C156S mutant and only active toward VEGFR-3/FLT-4 but, unlike wild type VEGF-C, is unable to bind to and to activate signalling through VEGFR-2/KDR. VEGF-C152S was inactive in the vascular permeability assay and did not increase migration of the capillary endothelial cells, indicating that these VEGF-like effects of VEGF-C require VEGFR-2 binding. VEGF-C, also known as Vascular Endothelial Growth Factor Related Protein (VRP), is a recently discovered VEGF growth factor family member that is most closely related to VEGF-D. The rat VEGF-C cDNA encodes a pre-pro-protein of 416 amino acids residues. It is almost identical to the mouse VEGF-C protein. Similar to VEGF-D, VEGF-C has a VEGF homology domain spanning the middle third of the precursor molecule and long N- and C-terminal extensions. In adults, VEGF-C is highly expressed in heart, placenta, ovary and small intestine. Recombinant rat VEGF-C, lacking the N- and C-terminal extensions and containing only the middle VEGF homology domain, forms primarily non-covalently linked dimers. This protein is a ligand for both VEGFR-2/KDR and VEGFR-3/FLT-4. Since VEGFR-3 is strongly expressed in lymphatic endothelial cells, it has been postulated that VEGF-C is involved in the regulation of the growth and/or differentiation of lymphatic endothelium. Although recombinant rat VEGF-C is also a mitogen for vascular endothelial cells, it is much less potent than VEGF-A. The recombinant rat VEGF-C contains 127 amino acids residues and was fused to a His-tag (6x His) at the C-terminal end. As a result of glycosylation VEGF-C migrates as an 18-24 kDa protein in SDS-PAGE under reducing conditions. Synonyms: vascular endothelial growth factor C, Vegfc
Molecular Weight:	18.0 - 24.0 kDa
Gene ID:	114111
NCBI Accession:	NM_053653, NP_446105
UniProt:	O35757
Pathways:	RTK Signaling, Signaling Events mediated by VEGFR1 and VEGFR2

Application Details

Application Notes:	(A) The proliferative response to rrVEGF-CC152S was assayed in VEGFR3-expressing porcine aortic endothelial (PAE) cells (in vitro). (B) The lymphangiogenic response to rrVEGF-CC152S loaded in a biopolymeric albumin-alginate microcapsules for targeted slow-release was

Application Details

	assayed in male Wistar rats.
Comment:	Cytokines & Growth Factors
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	The lyophilized VEGF-C152S is soluble in water and most aqueous buffers. The lyophilized VEGF-C152S should be reconstituted in PBS or medium to a concentration not lower than 50 µg/mL.
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 VEGF-C152S should be stored in working aliquots at -20°C. Avoid repeated freeze-thaw cycles!
Expiry Date:	6 months