Recombinant Human VEGFC

Cat. No. VEGFC-157H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human vascular endothelial growth factor C was expressed in modified*human 293 cells.*
Species	Human
Source	HEK293
Description	Vascular endothelial growth factor C (VEGF-C), also known as Flt4 ligand (Flt4-L), vascular endothelial growth factor-related protein (VRP) and VEGF-2, is a member of the cysteine-knot growth factor superfamily and exhibits homology with VEGF-121 (32%) and PDGF (27%). However VEGF-C also possesses a 180 amino acid C-terminal cysteine-rich domain absent in other VEGFs. The major secreted form of VEGF-C is a disulfide linked antiparallel homodimeric protein containing 5 potential N-linked glycosylation sites and has a theoretical molecular weight of 44 kDa. VEGF-C is predominantly involved in angiogenesis, vasculogenesis, lymphangiogenesis as well as an inhibitor of dendritic cell maturation. VEGF-C also possesses both mitogenic and chemotactic activity w.r.t. endothelial cells and monocytes.
Molecular Mass	VEGF-C secreted antiparallel homodimer migrates between 45 and 55 kDa due to post-translational modifications, in particular glycosylation. This compares with the unmodified homodimer that has a predicted molecular mass of 43.9 kDa. Individual chains of VEGF-C migrate as a band between 27 and 35 kDa in SDS-PAGE due to post-translational modifications, in particular glycosylation. This compares with the unmodified VEGF-C chains that have a predicted molecular mass of 21.6 and 22.2

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	kDa.
PI	VEGF-C secreted antiparallel homodimer separates into a number of isoforms with a pI between 5.6 and 8.4 in 2D PAGE due to post-translational modifications, in particular glycosylation. This compares with the unmodified VEGF-C homodimer that has a predicted pI of 7.8.
% Carbohydrate	VEGF-C consists of 15-40% from 1D gel of individual chains carbohydrate by weight.
Glycosylation	VEGF-C contains N- and probably O-linked oligosaccharides.
Purity	>95%, as determined by SDS-PAGE and visualized by silver stain.
Formulation	When reconstituted in 0.5 ml sterile phosphate-buffered saline, the solution will contain 1% human serum albumin (HSA) and 10% trehalose.
Reconstitution	It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial.
Storage	Lyophilized products should be stored at 2 to 8°C. Following reconstitution short-term storage at 4°C is recommended, and longer-term storage of aliquots at -18 to -20°C.

GENE INFORMATION

Gene Name	VEGFC vascular endothelial growth factor C [Homo sapiens]
Synonyms	vascular endothelial growth factor C; VRP; Flt4-L; VEGFC; FLT4 ligand DHM; vascular endothelial growth factor-related protein; VEGF-C; Flt4 ligand; Vascular endothelial growth factor-related protein
Gene ID	7424

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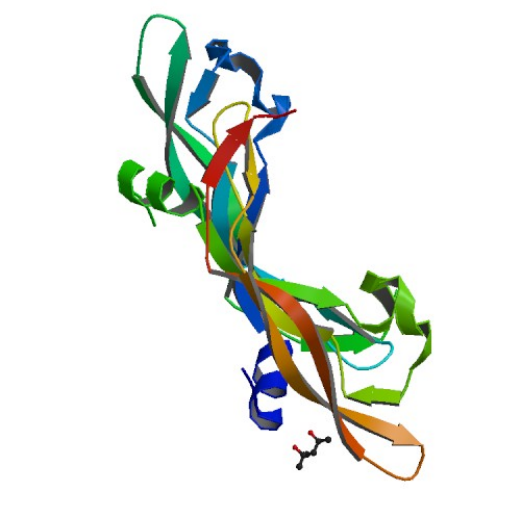
mRNA Refseq	NM_005429
Protein Refseq	NP_005420
MIM	601528
UniProt ID	P49767
Chromosome Location	4q34.3
Pathway	Bladder cancer; Cytokine-cytokine receptor interaction; Focal adhesion; Pancreatic cancer; Pathways in cancer; Renal cell carcinoma; mTOR signaling pathway; Hemostasis; Signaling by VEGF
Function	growth factor activity; vascular endothelial growth factor receptor 3 binding
PDB rendering based on 2c7w.	

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