

## Recombinant Human VEGFC

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

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| <b>Product Overview</b> | Recombinant Human vascular endothelial growth factor C was expressed in modified <i>human 293 cells</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Description</b>      | 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. |
| <b>Molecular Mass</b>   | 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.                                                                                                                                                                                                                                                                         |
| <b>PI</b>             | 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. |
| <b>% Carbohydrate</b> | VEGF-C consists of 15-40% from 1D gel of individual chains carbohydrate by weight.                                                                                                                                                                                           |
| <b>Glycosylation</b>  | VEGF-C contains N- and probably O-linked oligosaccharides.                                                                                                                                                                                                                   |
| <b>Purity</b>         | >95%, as determined by SDS-PAGE and visualized by silver stain.                                                                                                                                                                                                              |
| <b>Formulation</b>    | When reconstituted in 0.5 ml sterile phosphate-buffered saline, the solution will contain 1% human serum albumin (HSA) and 10% trehalose.                                                                                                                                    |
| <b>Reconstitution</b> | It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial.                                                                                                                                                                                     |
| <b>Storage</b>        | 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.                                                                                                   |

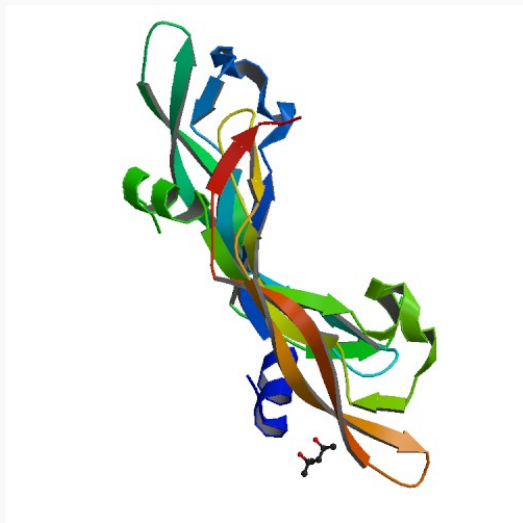
## GENE INFORMATION

|                  |                                                                                                                                                                                                        |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b> | VEGFC vascular endothelial growth factor C [ Homo sapiens ]                                                                                                                                            |
| <b>Synonyms</b>  | 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 |
| <b>Gene ID</b>   | 7424                                                                                                                                                                                                   |

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