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## Recombinant Human VEGF-C

**Description:** 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 human 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 human 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 human VEGF-C is also a mitogen for vascular endothelial cells, it is much less potent than VEGF-A. The recombinant human VEGF-C contains 129 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.

<b>Source:</b>	Insect cells
<b>Molecular Weight:</b>	18-24 kDa
<b>Purity:</b>	> 90%, by SDS-PAGE and visualised by silver stain
<b>Endotoxin level:</b>	< 0.1 ng per µg of VEGF-C
<b>Stabilizer:</b>	BSA (50-fold)
<b>Buffer:</b>	PBS
<b>Formulation:</b>	lyophilised

**Biological Activity:** Measured by its ability to bind to the VEGFR-3/FLT-4 receptor in the Ba/F3-hVEGFR-3 assay. The ED<sub>50</sub> in this assay is about 4 ng/ml.

**Reconstitution:** The lyophilized VEGF-C is soluble in water and most aqueous buffers. The lyophilized VEGF-C should be reconstituted in PBS or medium to a concentration not lower than 50 µg/ml.

**Stability:** Lyophilised samples are stable for more than six months at -20°C to -70°C. Reconstituted VEGF-C should be stored in working aliquots at -20°C. **Avoid repeated freeze-thaw cycles!**

**Usage:** Human VEGF-C is offered for research use. Not for drug use. **Not for human use!**

<b>Catalogue number:</b>	300-079	<b>Size:</b>	20 µg
		<b>Range:</b>	200- 400 ng/ml

Literature: [Joukov et al., EMBO J 15:290, 1996; Olofsson et al., Curr Opin Biotech 10:528, 1999 ; Kukk et al., Development 122:3829, 1996]

**\*\*Please note: always centrifuge product before opening vial!\*\***