

**Product:** Vascular Endothelial Growth Factor-C, Rat, Recombinant  
**Catalog #:** 11-VEGF-CR  
**Amount:** 5 µg

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**DESCRIPTION:**

Recombinant Rat Vascular Endothelial Growth Factor-C (rrVEGF-C)  
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 VEGFC 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 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.

**SOURCE:**

*Insect cells (Sf9)*

**PURITY:**

Greater than 90.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Anion-exchange FPLC.
- (c) Analysis by reducing and non-reducing SDS-PAGE Silver-Stained gel.

**ENDOTOXIN:**

Less than 0.1 ng/µg (IEU/µg) of rrVEGF

**DIMERS & AGREGATES:**

Less than 1% as determined by silver-stained SDS-PAGE gel analysis

**FORM:**

Purified

**PROTEIN CONTENT:**

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm
2. Analysis by RP-HPLC, using a calibrated solution of VEGF as a Reference Standard.

**STORAGE:**

-20°C (aliquot), avoid repeated freeze and thaw cycles.

**BIOLOGICAL ACTIVITY:**

rrVEGF-C is fully biologically active when compared to standards  
Measured by its ability to stimulate phosphorylation of the VEGFR-3/FLT-4 receptor in porcine aortic endothelial cells. The ED50 for this effect is typically 200-300 ng/ml

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