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## Product Data Sheet

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Product Name: VEGF C Rat  
 Cat. No.: GP21053  
 Batch No.: 1

### Product Data

Purity	>98%	Source	Sf9, Insect Cells.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.

Synonyms VEGF-C; Vascular endothelial growth factor C; VRP; Flt4 ligand; Flt4-L.

Amino Acid Sequence  
 DTVKLAAAHYNTEILKSIDNEWKRKTQCMPREVCIDVGKEFGAATNTFFKP  
 PCVSVYRCGGCCNSEGLQCMNTSTGYLSKTLFEITVPLSQGPKPVTISFA  
 NHTSCRCMSKLDVYRQVHSIIHHHHHH.

Solubility It is recommended to reconstitute the lyophilized Vascular Endothelial Growth Factor C in sterile 18MΩ-cm H<sub>2</sub>O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.

Formulation Each mg of VEGF-C Rat contains 50mg BSA and PBS as buffer.

### Introduction

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.

### Biological Activity

**Caution: Product has not been fully validated for medical applications. For research use only.**

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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 200-300ng/ml corresponding to a Specific Activity of 3,334-5,000IU/mg.

### Stability

Lyophilized Vascular Endothelial Growth Factor-C although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution VEGF-C should be stored at 4°C between 2-7 days and for future use below -18°C .Please prevent freeze-thaw cycles.

### Background

Vascular Endothelial Growth Factor C Rat Recombinant 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.

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