

Recombinant Rat Vascular Endothelial Growth Factor Related Protein (rr VEGF-C)

Synonyms: Vascular endothelial growth factor C, VRP, Flt4 ligand, Flt4-L.

Introduction: VEGF-C 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.

Description: 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: Sf9, Insect Cells

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: Lyophilized from a concentrated (1 mg/ml) solution with BSA. The aliquotes of 1 µg and 2 µg contain Trehalose 5% (w/vol) for better recovery

Solubility: It is recommended to reconstitute the lyophilized rr VEGF-C in sterile 18MΩ-cm water not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rr VEGF-C although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rr VEGF-C should be stored at 4° C between 2-7 days and for future use below -18° C.

Purity: Greater than 90.0% as determined by SDS-PAGE Silver stained gel.

Biological Activity: 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.

This material is offered for **research only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	2 µg	Cat.N°	13344672
<i>medium</i>	10 µg	Cat.N°	13344673
<i>large</i>	50 µg	Cat.N°	13344675
<i>x-large</i>	250 µg	Cat.N°	13344677

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Gladiolenweg 2; 26169 Friesoythe; Germany
 phone:+49-(0)4491-400997, fax:+49-(0)4491-400998, info@immunotools.com
www.immunotools.com