

Recombinant Human Vascular Endothelial Growth Factor-C (rh VEGF-C)

Synonyms: Flt4 ligand, Flt4-L, Vascular endothelial growth factor-related protein, VPR.

Introduction: VEGF-C is a recently discovered VEGF growth factor family member that is most closely related to VEGF-D. 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.

Description: 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.

Source: Sf9, Insect Cells

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

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

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

Stability: Lyophilized rh VEGF-C although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rh VEGF-C should be stored at 4° C between 2-7 days and for future use below -18° C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity: Greater than 90.0% as determined by RP-HPLC and by SDS-PAGE.

Biological Activity: Measured by its ability to bind to the VEGFR-3/FLT-4 receptor in the Ba/F3-hVEGFR-3 assay. The ED₅₀ in this assay is about 4 ng/ml.

This material is offered for **research use 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°	11344692
<i>medium</i>	10 µg	Cat.N°	11344693

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