

## Recombinant Rat VEGF-C<sub>152S</sub>

**Catalog No:** CRV009B                      **Size:** 5 µg  
CRV009A                                      **Size:** 20 µg

**Description:** VEGF-C<sub>152S</sub> is a point mutant generated by the replacement of the second conserved Cys residue of the recombinant processed VEGF-C by a Ser residue. VEGF-C<sub>152S</sub> is analog to the human VEGF-C<sub>156S</sub> mutant and only active toward VEGFR-3/FLT-4 but, unlike wild type VEGF-C, is unable to bind to and to activate signalling through VEGFR-2/KDR. VEGF-C<sub>152S</sub> was inactive in the vascular permeability assay and did not increase migration of the capillary endothelial cells, indicating that these VEGF-like effects of VEGF-C require VEGFR-2 binding.

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 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 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. VEGF-C migrates as an 18-24 kDa protein in SDS-PAGE under reducing conditions.

**Range:** 100-400 ng/ml  
**Source:** Insect cells  
**Molecular Weight:** 36-48 kDa  
**Biological Activity:** ~5 x 10<sup>3</sup> units/mg  
**Purity:** > 90%, by SDS-PAGE and visualized by silver stain  
**Endotoxin level:** < 0.1 ng per µg of VEGF-C<sub>152S</sub>  
**Stabilizer:** BSA  
**Buffer:** none  
**Formulation:** lyophilized

**Biological Activity:** Measured by its ability to stimulate phosphorylation of the VEGFR-3/FLT-4 receptor in porcine aortic endothelial cells (PAE/FLT-4 cells). The ED<sub>50</sub> for this effect is typically 150-300 ng/ml.

**Reconstitution:** Centrifuge vial briefly before opening to bring contents to bottom of vial. The lyophilized VEGF-C<sub>152S</sub> is soluble in water and most aqueous buffers. The lyophilized VEGF-C<sub>152S</sub> should be reconstituted in PBS or medium to a concentration not lower than 50 µg/ml. **Note: Always centrifuge vial before opening.**

**Stability:** Lyophilized samples are stable for greater than six months at -20°C to -70°C. Reconstituted VEGF-C<sub>152S</sub> should be stored in working aliquots at -20°C. **Avoid repeated freeze-thaw cycles.**

**NOT FOR HUMAN USE. FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES.**



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