

## DA3519X

## Recombinant Rat VEGF-C / Flt4-L

### Alternate names:

Flt4 ligand, VEGFC, VRP, Vascular endothelial growth factor C, Vascular endothelial growth factor-related protein

### Quantity:

20 µg

### Background:

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.

### Uniprot ID:

[O35757](#)

### NCBI:

[NP\\_446105.1](#)

### GeneID:

[114111](#)

### Species:

Rat

### Source:

Insect cells

### Format:

**State:** Lyophilized purified protein

**Purity:** >90% pure by SDS-PAGE and visualised by silver stain

**Buffer System:** 50mM Acetic Acid

**Stabilizers:** BSA

**Endotoxin Level:** < 0.1 ng per µg of VEGF-C

**Reconstitution:** The lyophilized VEGF-C is soluble in water and most aqueous buffers. Restore in PBS or medium to a concentration not lower than 50 µg/ml.

### Description:

The recombinant Rat VEGF-C contains 115 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 15-20 kDa protein in SDS-PAGE under reducing conditions.

#### AA Sequence:

DTVKLAAAHYNTEILKSIDNEWRKTCMPREVCIDVGKEFGAATNTFFKPPCVSVYRCGGCCNSEGLQCMNTSTGYL

SKTLFEITVPLSQGPKPVTISFANHTSCRCMSKLDVYRQVHSIIHHHHHH

**Biological Activity:** Determined (i) by the ability to induce VEGFR-3/FLT-4 receptor phosphorylation in PAEC/VEGFR-3 cells and (ii) the VEGF-C-induced proliferation of primary human dermal lymphatic endothelial cells (HDLEC).

**Molecular weight:** 15-20 kDa (127 aa)

**Storage:**

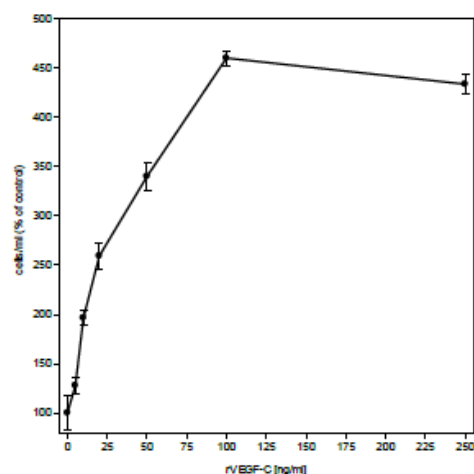
Store lyophilized at 2-8°C for 6 months or at -20°C long term.  
After reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C long term.  
Avoid repeated freezing and thawing.  
Shelf life: one year from despatch.

**General Readings:**

1. Joukov et al., EMBO J 15:290, 1996
2. Olofsson et al., Curr Opin Biotech 10:528, 1999
3. Kukuk et al., Development 122:3829, 1996

**Pictures:**

VEGF-C-induced proliferation of primary human dermal lymphatic endothelial cells (HDLEC). HDLECs were stimulated with increasing amounts of recombinant rat VEGF-C.



SDS-PAGE analysis of recombinant rat VEGF-C. Sample was loaded in 15% SDS-polyacrylamide gel under reducing conditions and stained with Silver stain.

