

DA3519

Recombinant Rat VEGF-C / Flt4-L

Alternate names:

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

Quantity:

5 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:

DTVKLAAAHYNTEILKSIDNEWRTQCMPEVCIDVGKEFGAATNTFFKPPCVSVYRCGGCCNSEGLQCMNTSTGYL

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:

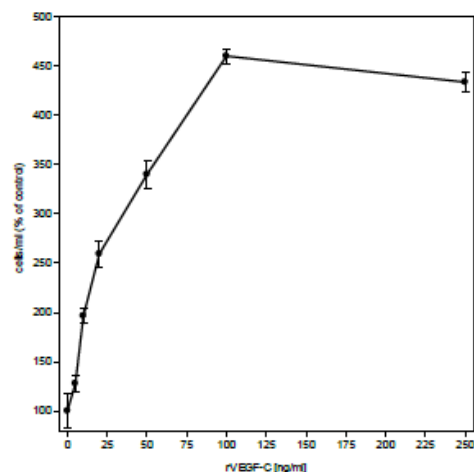
Store lyophilized at 2-8°C for 6 months or at -20°C long term.
After reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C long term.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings:

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

