OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850
UNITED STATES
Phone: +1-888-267-4436
Fax: +1-301-340-8606
techsupport@origene.com

OriGene Technologies GmbH
Schillerstr. 5
32052 Herford
GERMANY
Phone: +49-5221-34606-0
Fax: +49-5221-34606-11
info-de@origene.com

AR01001PU-N Recombinant Human 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 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.

Uniprot ID: O35757

NCBI: NP_446105.1

GeneID: 114111

Species: Human

Source: Insect cells

Format:
State: Lyophilized protein
Purity: >90% pure by SDS-PAGE and visualised by silver stain
Buffer System: PBS containing BSA (50-fold) as stabilizer
Endotoxin Level: < 0.1 ng per µg of VEGF-C
Reconstitution: Restore in PBS or medium to a concentration not lower than 50 µg/ml.

Description: The 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.
AA Sequence:
DPTEETIKFAAAHYNTEILKSIDNEWRKTQCMPREVCIDVGKEFGVATNTFKPPCVSVYRCGGCCNSEGLQC
MNTST
SYLSKTLFEITVPLSQGPKPVT ISFANHTSCRCMSKLHHHHHH
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: 18-24 kDa (121 amino acids)

Storage:

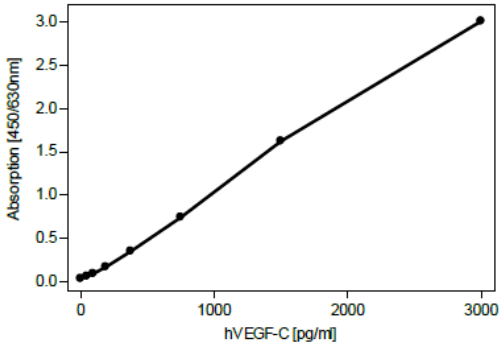
Store lyophilized at 2-8°C for 6 months or at -20°C long term.
After reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C long term.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings:

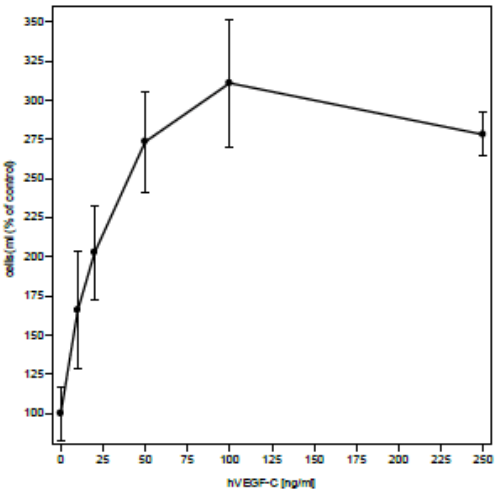
1. Joukov et al., EMBO J 15:290, 1996
2. Olofsson et al., Curr Opin Biotech 10:528, 1999
3. Kukk et al., Development 122:3829, 1996

Pictures:

VEGF-C Sandwich-ELISA using recombinant human VEGF-C as standard (Cat.-No AR01001PU-N). Mouse anti-human VEGF-C #9/G10 was used as capture antibody, Biotinylated mouse anti-human VEGF-C #107/A11 was used for detection.



VEGF-C-induced proliferation of HDLECs. HDLECs were stimulated with increasing amounts of recombinant human VEGF-C.



Measured by its ability to induce VEGFR-3/FLT-4 receptor phosphorylation in PAEC cells expressing VEGFR-3/FLT-4.