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VEGF C Rat

Vascular Endothelial Growth Factor Related Protein Rat Recombinant
GRF0404

Product Overview

Name	VEGF C Rat
Description	
Vascular Endothelial Growth Factor Related Protein Rat Recombinant	
Accession (Primary)	P16612
Synonyms	
VEGF-C, Vascular endothelial growth factor C, VRP, Flt4 ligand, Flt4-L.	
Introduction	

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 VEGFC 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.

Source

Sf9, Insect Cells.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

Each mg of VEGF-C Rat contains 50mg BSA and PBS as buffer.

Stability

Lyophilized Vascular Endothelial Growth Factor-C although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution VEGF-C should be stored at 4°C between 2-7 days and for future use below -18°C. Please prevent freeze-thaw cycles.

Purity

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Greater than 90.0% as determined by SDS-PAGE.

Amino acid sequence

DTVKLAAAHYNTEILKSIDNEWRKTQCMPREVCIDVGKEFGAATNTFFKP

PCVSVYRCGGCCNSEGLQCMNTSTGYLSKTLFEITVPLSQGPKPVTISFA NHTSCRCMSKLDVYRQVHSII HHHHHH .

Biological Activity

Measured by its ability to stimulate phosphorylation of the VEGFR-3/FLT-4 receptor in porcine aortic endothelial cells.

The ED50 for this effect is typically 200-300ng/ml corresponding to a Specific Activity of 3,334-5,000IU/mg.

Solubility

It is recommended to reconstitute the lyophilized Vascular Endothelial Growth Factor C in sterile 18MΩ-cm H2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Precautions

VEGF C Rat is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P16612)