

Rat VEGFC / VEGF-C Protein (aa 108-223, Fc Tag)

Catalog Number: 80103-R01H



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

VEGFC

Protein Construction:

A DNA sequence encoding the rat VEGFC (O35757) (Ala108-Arg223) was expressed, fused with the Fc region of human IgG1 at the N-terminus.

Source: Rat

Expression Host: Human Cells

QC Testing

Purity: > (73+25.1) % as determined by SDS-PAGE

Bio-Activity

Immobilized mouse FLT4-His (Cat:50584-M08H) at 10 µg/ml (100 µl/well) can bind rat Fc-VEGFC, The EC50 of rat Fc-VEGFC is 0.41-0.95 µg/ml.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Glu

Molecular Mass:

The recombinant Rat VEGFC/Fc comprises 376 amino acids and has a predicted molecular mass of 41.5 kDa. The apparent molecular mass of the protein is approximately 44 and 34 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

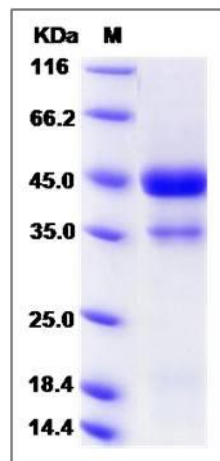
Usage Guide

Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

Vascular endothelial growth factor (VEGF)-C is a member of the VEGF family, a group of polypeptide growth factors which play key roles in the physiology and pathology of many aspects of the cardiovascular system, including vasculogenesis, hematopoiesis, angiogenesis and vascular permeability. While VEGFC is homologous to other members of the VEGF/PDGF family, it contains the C-terminal propeptide which has an unusual structure with tandemly repeated cysteine-rich motifs. Upon biosynthesis, VEGFC is secreted as a non-covalent momodimer in an anti-parallel fashion. VEGF signalling in endothelial cells occurs through three tyrosine kinase receptors (VEGFRs) expressed by endothelial cells and hematopoietic precursors, and VEGF-C is a ligand for two receptors, VEGFR-3 (Flt4), and VEGFR-2. It is indicated that VEGFC undergoes a complex proteolytic maturation generating a variety of processed secreted forms with increased activity toward VEGFR-3, but only the fully processed form could activate VEGFR-2. VEGFC may function in angiogenesis of the venous and lymphatic vascular systems during embryogenesis, and also in the maintenance of differentiated lymphatic endothelium in adults.

References

1. Mandriota S.J. et al., 1999, J Soc Biol. 193 (2): 159-63.
2. Joukov V. et al., 1996, EMBO J. 15 (2): 290-98.
3. Vladimir Joukov. et al., 1997, The EMBO Journal. 16 (13): 3898-911.

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