

**APA145Hu01 100µg**  
**Active Vascular Endothelial Growth Factor C (VEGFC)**  
**Organism Species: Homo sapiens (Human)**  
***Instruction manual***

FOR RESEARCH USE ONLY  
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

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1st Edition (Apr, 2016)

## **[ PROPERTIES ]**

**Source:** Prokaryotic expression.

**Host:** *E. coli*

**Residues:** Glu47~Trp413

**Tags:** Two N-terminal Tags, His-tag and SUMO-tag

**Purity:** >92%

**Endotoxin Level:** <1.0EU per 1µg (determined by the LAL method).

**Buffer Formulation:** PBS, pH7.4, containing 0.01% SKL, 5% Trehalose.

**Original Concentration:** 80µg/mL

**Applications:** Cell culture; Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

**Predicted isoelectric point:** 8.2

**Predicted Molecular Mass:** 55.3kDa

**Accurate Molecular Mass:** 65kDa as determined by SDS-PAGE reducing conditions.

Phenomenon explanation:

The possible reasons that the actual band size differs from the predicted are as follows:

1. Splice variants: Alternative splicing may create different sized proteins from the same gene.
2. Relative charge: The composition of amino acids may affects the charge of the protein.
3. Post-translational modification: Phosphorylation, glycosylation, methylation etc.
4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form.
5. Polymerization of the target protein: Dimerization, multimerization etc.

## [ USAGE ]

Reconstitute in ddH<sub>2</sub>O to a concentration of 0.1-0.25mg/mL. Do not vortex.

## [ STORAGE AND STABILITY ]

**Storage:** Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

**Stability Test:** The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

## [ SEQUENCE ]

EATA  
YASKDLEEQL RSVSSVDELM TVLYPEYWKM YKCQLRKGGW QHNREQANLN  
SRTEETIKFA AAHYNTEILK SIDNEWKRTQ CMPREVCIDV GKEFGVATNT  
FFKPPCVSVY RCGGCCNSEG LQCMNTSTSY LSKTLFEITV PLSQGPVPVT  
ISFANHSCR CMSKLDVYRQ VHSIIRSLP ATLPQCQAAN KTCPTNYMWN  
NHICRCLAQE DFMFSSDAGD DSTDGFHDIC GPNKELDEET CQCVCRAGLR  
PASCOPHREL DRNSCQCVCCK NKLFPSCCGA NREFDENTCQ CVCKRTCPRN  
QPLNPGKCAC ECTESPQKCL LKGKKFHHQT CSCYRRPCTN RQKACEPGFS  
YSEEVCRCPV SYW

## [ ACTIVITY ]

Vascular endothelial growth factor C (VEGFC) is a protein that is a member of the platelet-derived growth factor/vascular endothelial growth factor (PDGF/VEGF) family. It plays key roles in the physiology and pathology of many aspects of the cardiovascular system, including vasculogenesis, hematopoiesis, angiogenesis and vascular permeability. To test the effect of VEGFC on cell proliferation of ECV304 endothelium cell line, cells were seeded into triplicate wells of 96-well plates at a density of 2,000cells/well and allowed to attach overnight, then the medium was replaced with serum-free standard DMEM prior to the addition of various concentrations of VEGFC.

After incubated for 72h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10 $\mu$ L of CCK-8 solution was added to each well of the plate, then measure the absorbance at 450nm using a microplate reader after incubating the plate for 1-4 hours at 37 $^{\circ}$ C. The dose-effect curve of VEGFC was shown in Figure 1. It was obvious that VEGFC significantly promoted cell proliferation of ECV304 cells. The ED50 for this effect is typically 0.304 to 1.339 $\mu$ g/mL.

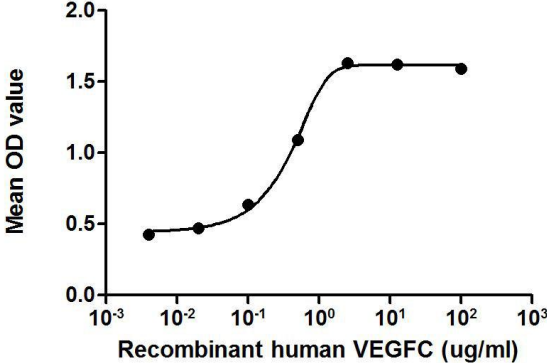


Figure 1. The dose-effect curve of VEGFC on ECV304 cells

[ IDENTIFICATION ]

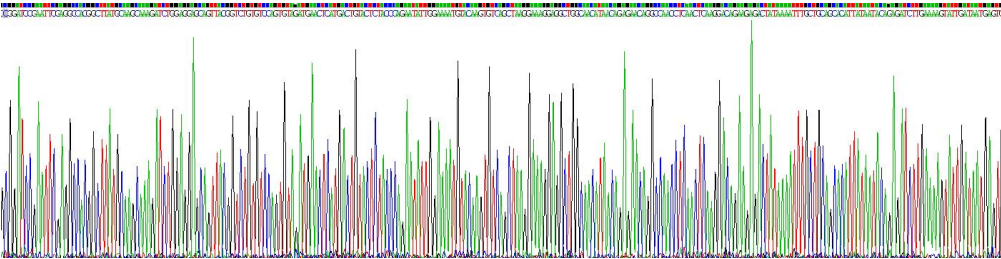
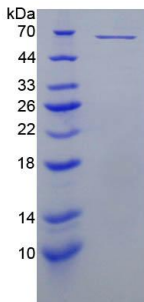
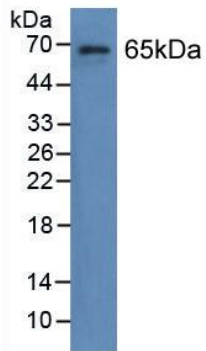


Figure2 . Gene Sequencing (extract)



**Figure 3. SDS-PAGE**

**Sample: Active recombinant VEGFC, Human**



**Figure 4. Western Blot**

**Sample: Recombinant VEGFC, Human;**

**Antibody: Rabbit Anti-Human VEGFC Ab (PAA145Hu01)**

## **[ IMPORTANT NOTE ]**

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.