

# Active Vascular Endothelial Growth Factor A (VEGFA) Instruction Manual

**SBPA087Hu01**

**Homo sapiens (Human)**

**Buffer Formulation**

20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.

**Traits**

Freeze-dried powder

**Purity**

> 97%

**Isoelectric Point**

6.3

**Applications**

Cell culture; Activity Assays.

**ACTIVITY TEST**

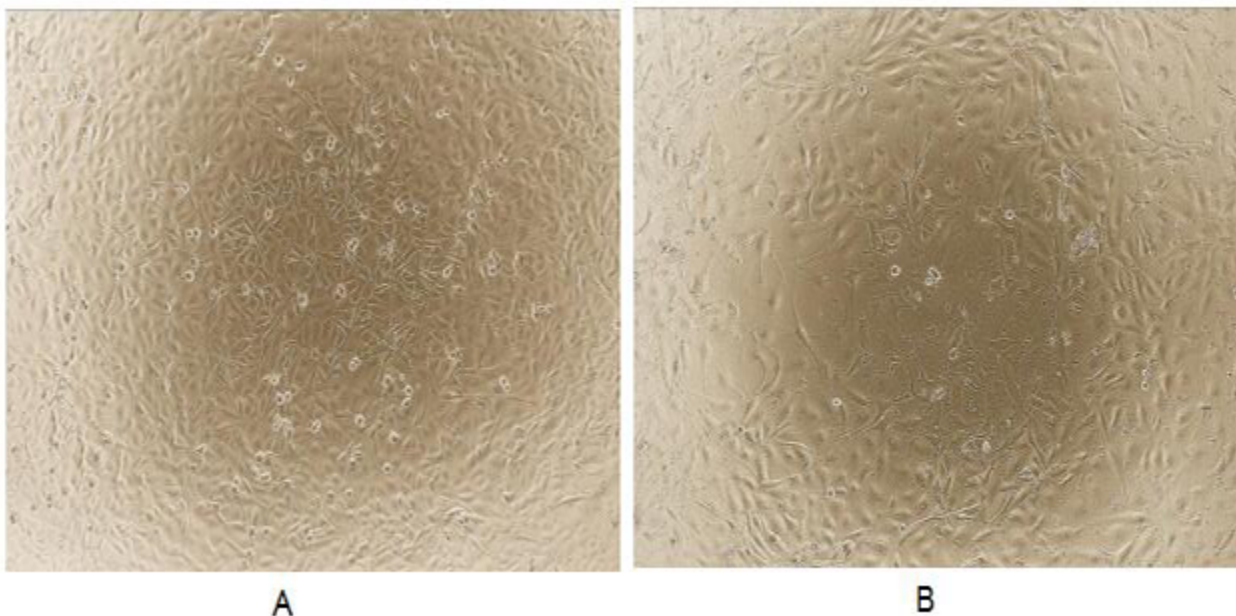


Figure. Cell proliferation of ECV-304 cells after stimulated with VEGFA. Vascular endothelial growth factor A (VEGFA) is a protein that in humans is encoded by the VEGFA gene. This protein is a glycosylated mitogen that specifically acts on endothelial cells and has various effects, including mediating increased vascular permeability, inducing angiogenesis, vasculogenesis and endothelial cell growth, promoting cell migration, and inhibiting apoptosis. VEGFA shows prominent activity

with vascular endothelial cells, primarily through its interactions with the VEGFR1 and -R2 receptors found in prominently on the endothelial cell membrane. Thus, proliferation assay of recombinant human VEGFA was conducted using ECV-304 cells. Briefly, ECV-304 cells were seeded into triplicate wells of 96-well plates at a density of 2,000 cells/well and allowed to attach overnight, then the medium was replaced with serum-free standard 1640 prior to the addition of various concentrations of VEGFA. After incubated for 48h, 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 the absorbance at 450nm was measured using a microplate reader after incubating the plate for 1-4 hours at 37°C. Proliferation of ECV-304 cells after incubation with VEGFA for 48h observed by inverted microscope was shown in Figure 1. Cell viability was assessed by CCK-8 (Cell Counting Kit-8 ) assay after incubation with human recombinant VEGFA for 48h. The result was shown in Figure 2. It was obvious that VEGFA significantly increased cell viability of ECV-304 cells. (A) ECV-304 cells cultured in 1640, stimulated with 100ng/mL VEGFA for 48h; (B) Unstimulated ECV-304 cells cultured in 1640 for 48h.

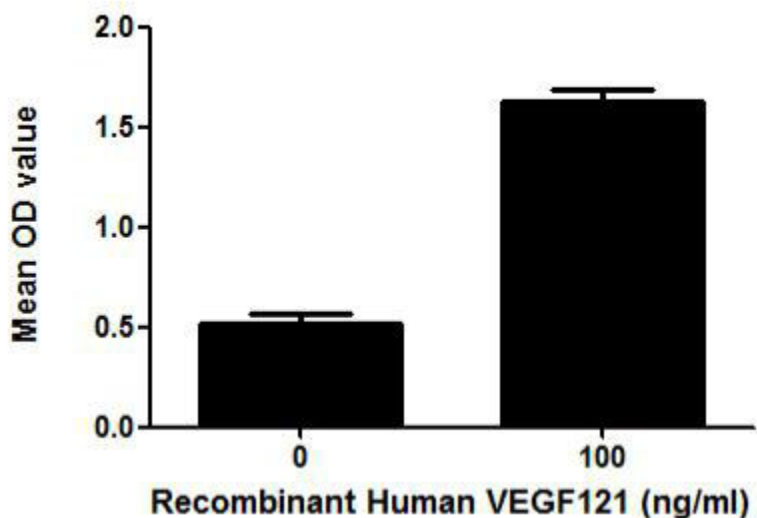


Figure. Cell proliferation of ECV-304 cells after stimulated with VEGFA.

### USAGE

Reconstitute in 20mM Tris, 150mM NaCl (PH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

### STORAGE

Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.

## STABILITY

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.

## Image

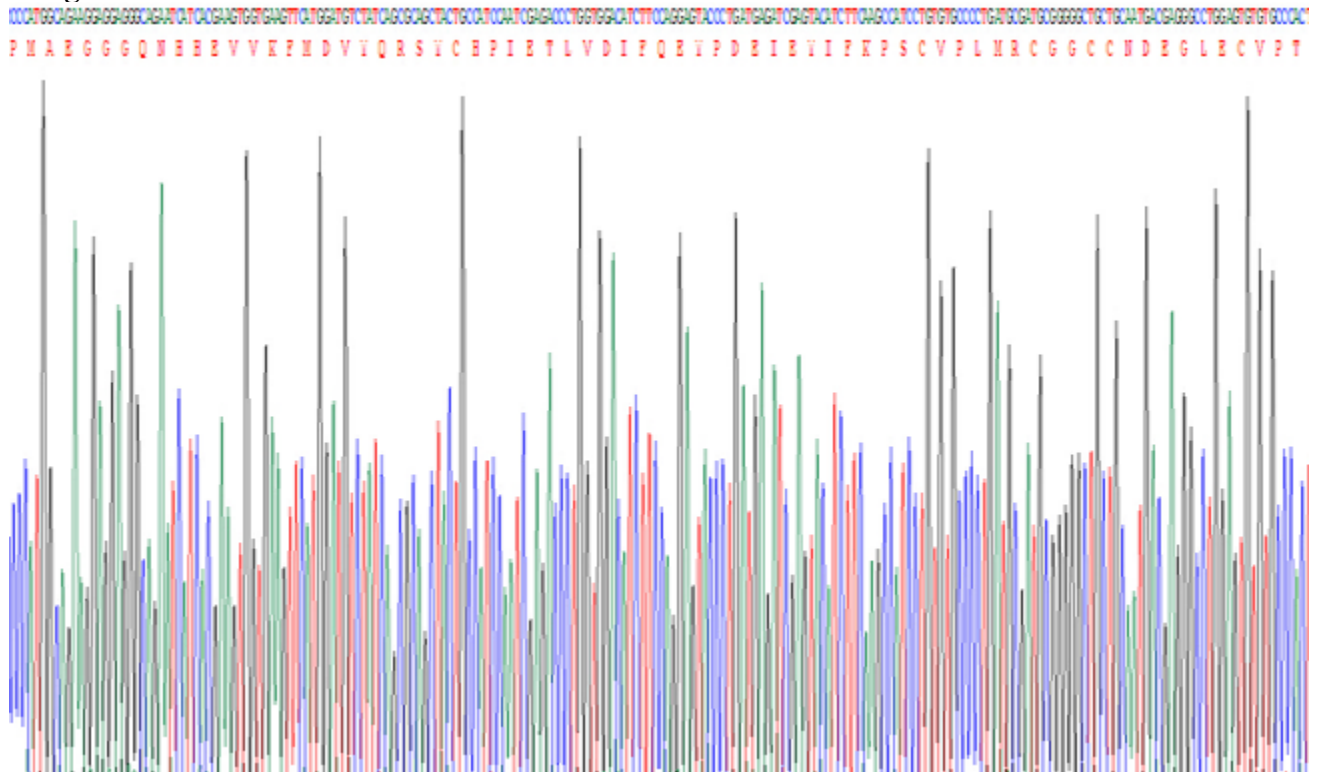


Figure. Gene Sequencing (Extract)

## Image

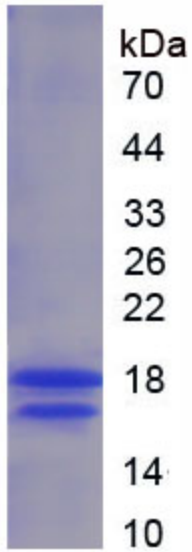


Figure. SDS-PAGE

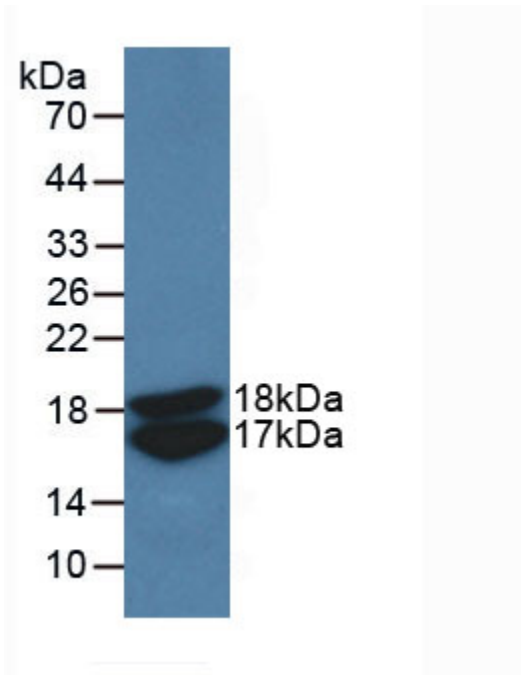


Figure. Western Blot

**[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.

