Active Vascular Endothelial Growth Factor A (VEGFA) Instruction Manual

SBPA087Ra61

Rattus norvegicus (Rat)

Buffer Formulation	PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Traits	Freeze-dried powder
Purity	> 97%
Isoelectric Point	7.9
Applications	Cell culture; Activity Assays.

ACTIVITY TEST

Figure 1. Cell proliferation of ECV304 cells after stimulated with VEGFA.

(A) ECV304 cells cultured in serum-free DMEM, stimulated with 10ng/mL VEGFA for 72h;

(B) Unstimulated ECV304 cells cultured in serum-free DMEM for 72h.

Vascular endothelial growth factor A (VEGF-A), a glycosylated mitogen, is known to be a vascular permeability factor and an endothelial cell growth factor secreted by the smooth muscle and endothelial cells. It has been reported that VEGF-A induces vascular permeability and growth, promotes monocyte/macrophage migration, and inhibits cell apoptosis and so on. To test the effect of VEGF-A on cell proliferation of ECV304 endothelium cell line, 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 DMEM prior to the addition of various concentrations of VEGFA. After incubated for 72h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10μL 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 37oC .
Cell proliferation of ECV304 cells after incubation with VEGFA for 72h observed by inverted microscope was shown in Figure 1.

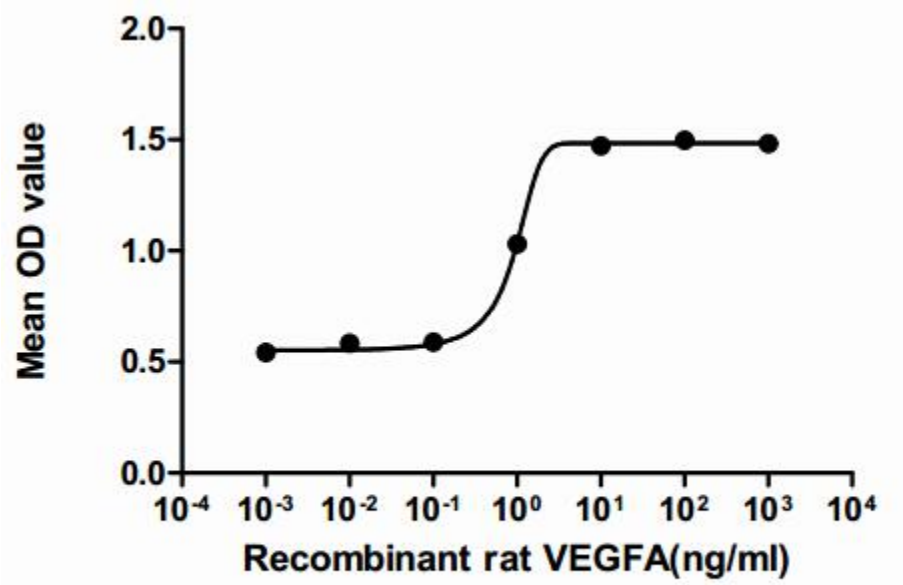


Figure 2. The dose-effect curve of VEGFA on ECV304 cells.

The dose-effect curve of VEGFA was shown in Figure 2. It was obvious that VEGFA significantly promoted cell proliferation of ECV304 cells. The ED50 for this effect is typically 5.58 to 9.98 ng/mL.

USAGE

Reconstitute in PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

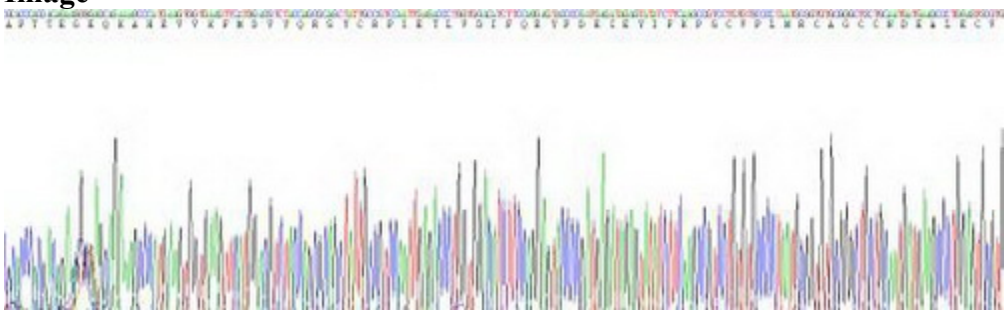
STORAGE

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



SDS-PAGE Image

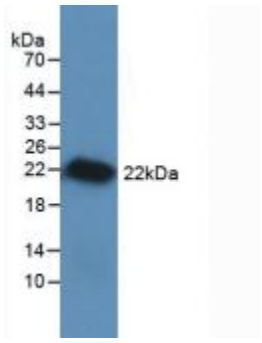


Figure. Western Blot; Sample: Recombinant VEGFA, Rat.

[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.