Active Vascular Endothelial Growth Factor A (VEGFA)

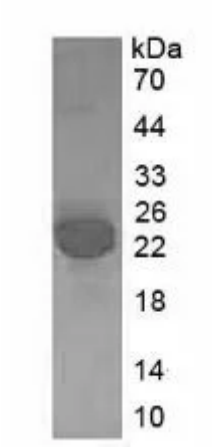
Catalog#:PHR12257

概述（Summary）

别称（Alternative Names）	VEGF; VEGF-A; VPF; Vascular Endothelial Cell Growth Factor A; Vascular Permeability Factor
纯度（Purity）	Greater than 97% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Ala27-Arg190】
Accession #	P16612
表达宿主（Host）	293F
种属（Species）	Rattus norvegicus (Rat)
预测分子量（Predicted MW）	20.8 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Growth factor active in angiogenesis, vasculogenesis and endothelial cell growth. Induces endothelial cell proliferation, promotes cell migration, inhibits apoptosis and induces permeabilization of blood vessels. Binds to the FLT1/VEGFR1 and KDR/VEGFR2 receptors, heparan sulfate and heparin. May play a role in increasing vascular permeability during lactation, when increased transport of molecules from the blood is required for efficient milk protein synthesis. Binding to NRP1 receptor initiates a signaling pathway needed for motor neuron axon guidance and cell body migration, including for the caudal migration of facial motor neurons from rhombomere 4 to rhombomere 6 during embryonic

development.

电泳图（SDS-PAGE image）



Greater than 97% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

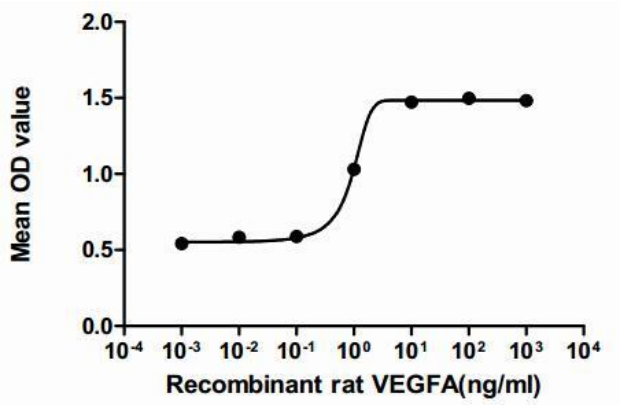


Figure 2. The dose-effect curve of VEGFA on ECV304 cells.

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. 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.



A B

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.

注意事项（Note）

For Research Use Only , Not for Diagnostic Use.