Active Stem Cell Factor (SCF)

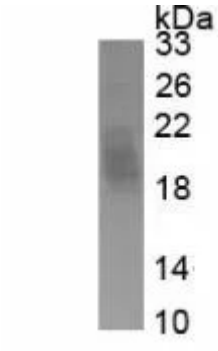
Catalog#:PHV12203

概述（Summary）

别称（Alternative Names）	KITLG; MGF; SF; KL1; Kitl; FPH2; Kit-Ligand; Steel Factor; Mast Cell Growth Factor; Steel factor; Familial Progressive Hyperpigmentation 2
纯度（Purity）	Greater than 95% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Thr25-Ala191】
Accession #	Q29030
表达宿主（Host）	293F
种属（Species）	Sus scrofa; Porcine (Pig)
预测分子量（Predicted MW）	20.4 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 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Ligand for the receptor-type protein-tyrosine kinase KIT. Plays an essential role in the regulation of cell survival and proliferation, hematopoiesis, stem cell maintenance, gametogenesis, mast cell development, migration and function, and in melanogenesis. KITLG/SCF binding can activate several signaling pathways. Promotes phosphorylation of PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase, and subsequent activation of the kinase AKT1. KITLG/SCF and KIT also transmit signals via GRB2 and activation of RAS, RAF1 and the MAP kinases MAPK1/ERK2 and/or MAPK3/ERK1. KITLG/SCF and KIT

promote activation of STAT family members STAT1, STAT3 and STAT5. KITLG/SCF and KIT promote activation of PLCG1, leading to the production of the cellular signaling molecules diacylglycerol and inositol 1,4,5-trisphosphate. KITLG/SCF acts synergistically with other cytokines, probably interleukins.

电泳图（SDS-PAGE image）



Greater than 95% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

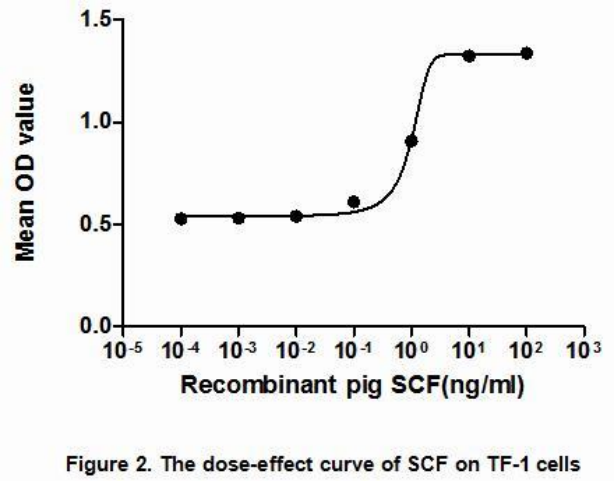
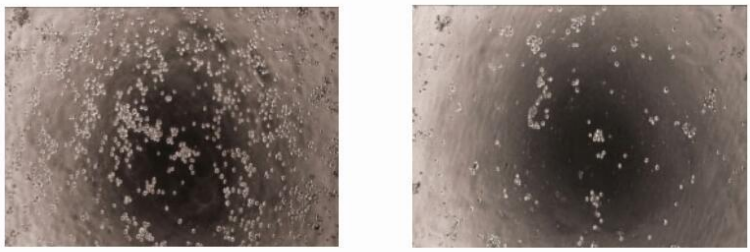


Figure 2. The dose-effect curve of SCF on TF-1 cells

Stem cell factor (SCF), also known as mast cell growth factor (MGF), and steel factor (SLF), plays an important role in hematopoiesis, spermatogenesis, and melanogenesis. SCF has been shown to stimulate the proliferation of TF-1 cells. To test this effect, TF-1 cells were seeded into triplicate wells of 96-well plates at a density of 1x104cells/well and incubated for 72h in the presence or absence of various concentrations of SCF at 37oC. The growth of 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 TF-1 cells after incubation with SCF for 72h observed by inverted microscope was shown in Figure 1. The dose-effect curve of SCF was shown in Figure 2. It was obvious that it significantly promoted cell proliferation of TF-1 cells. The ED50 for this effect is typically 6.07 to 13.69ng/mL.



A B

Figure 1. Cell proliferation of TF-1 cells after stimulated with SCF.

(A) TF-1 cells cultured in RPMI-1640, stimulated with 10ng/mL SCF for 72h;

(B) Unstimulated TF-1 cells cultured in RPMI-1640 for 72h.

注意事项（Note）

For Research Use Only , Not for Diagnostic Use.