Active Stem Cell Factor (SCF)

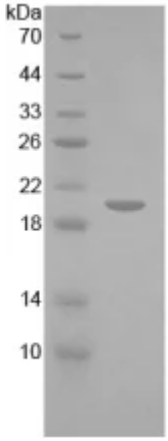
Catalog#:PEM12202

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 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）	【Lys24-Ala219】
Accession #	P20826
表达宿主（Host）	E.coli
种属（Species）	Mus musculus (Mouse)
预测分子量（Predicted MW）	22.9 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 97% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

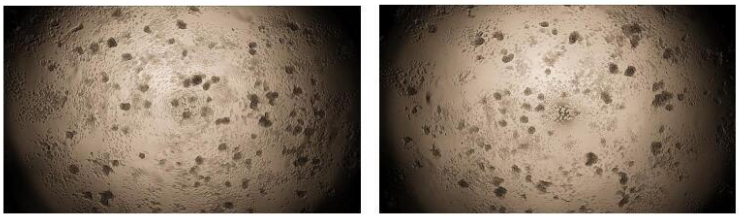
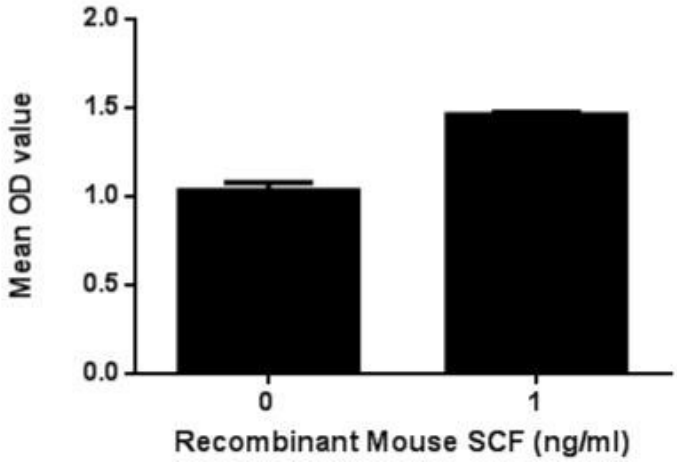


Figure. Cell proliferation of Raw264.7 cells after stimulated with SCF. Stem cell factor (also known as SCF, KIT-ligand, KL, or steel factor) is a cytokine that binds to the c-KIT receptor (CD117). SCF can exist both as a transmembrane protein and a soluble protein. This cytokine plays an important role in hematopoiesis (formation of blood cells), spermatogenesis, and melanogenesis. SCF has been shown to stimulate the proliferation of Raw264.7 cells. To test this effect, Raw264.7 cells were seeded into triplicate wells of 96-well plates at a density of 2,000 cells/well and allowed to attach later, replaced with serum-free overnight, then the medium was replaced with 2% serum standard DMEM containing various concentrations of recombinant mouse SCF. After incubated for 120h, 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 the absorbance at 450nm was measured using a microplate reader after incubating the plate for 1-4 hours at 37℃. Proliferation of Raw264.7 cells after incubation with SCF for 120h observed by inverted microscope was shown in Figure 1. Cell viability was assessed by CCK-8 (Cell Counting Kit-8) assay after incubation with recombinant SCF for 120h. The result was shown in Figure 2. It was obvious that SCF significantly increased cell viability of Raw264.7 cells. (A) Raw264.7 cells cultured in DMEM, stimulated with 1ng/mL SCF for 120h; (B) Unstimulated Raw264.7 cells cultured in DMEM for 120h. Figure. Cell proliferation of Raw264.7 cells after stimulated with SCF.



注意事项（Note）

For Research Use Only , Not for Diagnostic Use.