

Active Stem Cell Factor (SCF) Instruction Manual

SBPA076Mu01

Mus musculus (Mouse)

Buffer Formulation

PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.

Traits

Freeze-dried powder

Purity

> 97%

Isoelectric Point

5.1

Applications

Cell culture; Activity Assays.

ACTIVITY TEST

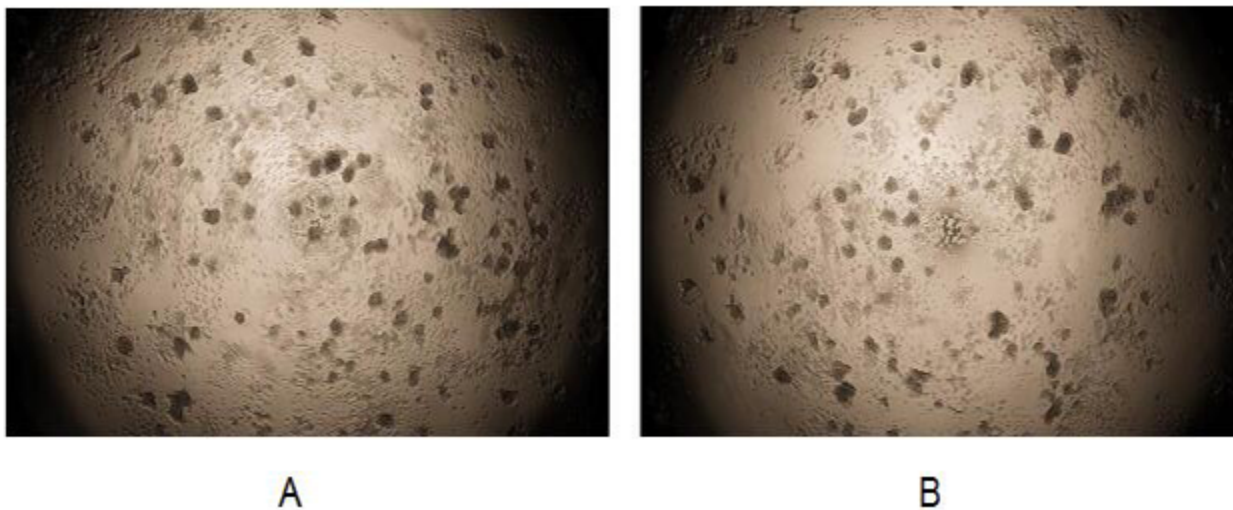


Figure. Cell proliferation of Raw264.7 cells after stimulated with SCF. Stem cell factor (also known as SCF, KIT-ligand, KL, or steel factor) is a cytokine that binds to the c-KIT receptor (CD117). SCF can exist both as a transmembrane protein and a soluble protein. This cytokine plays an important role 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, 10 μ 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 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.

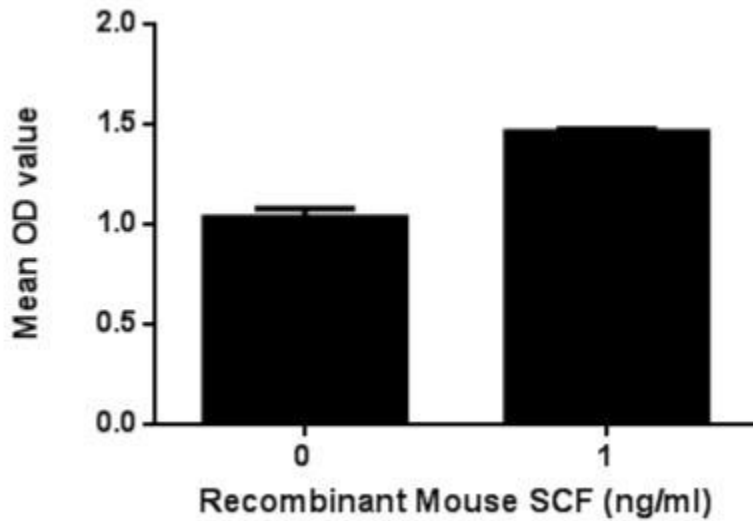


Figure. Cell proliferation of Raw264.7 cells after stimulated with SCF.

USAGE

Reconstitute in 10mM 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.

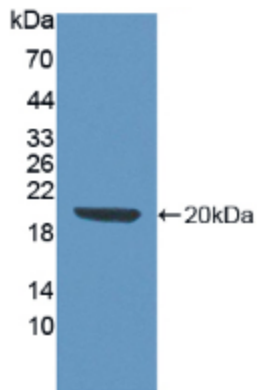


Figure. Western Blot

[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.