MBS2097265 50μg
Active Stem Cell Factor (SCF)
Organism Species: *Sus scrofa; Porcine (Pig)*
Instruction manual
1st Edition (Apr, 2016)

[PROPERTIES]

Source: Eukaryotic expression.
Host: 293F cell
Residues: Thr25~Ala191
Tags: N-terminal His-tag
Purity: >95%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: 10mM PBS, pH7.4, containing 5% trehalose.
Applications: Cell culture; Activity Assays; In vivo assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 5.3
Predicted Molecular Mass: 20.4kDa
Accurate Molecular Mass: 20kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.
Store at 2-8ºC for one month.
Aliquot and store at -80ºC for 12 months.
Stability Test: 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 37ºC 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.

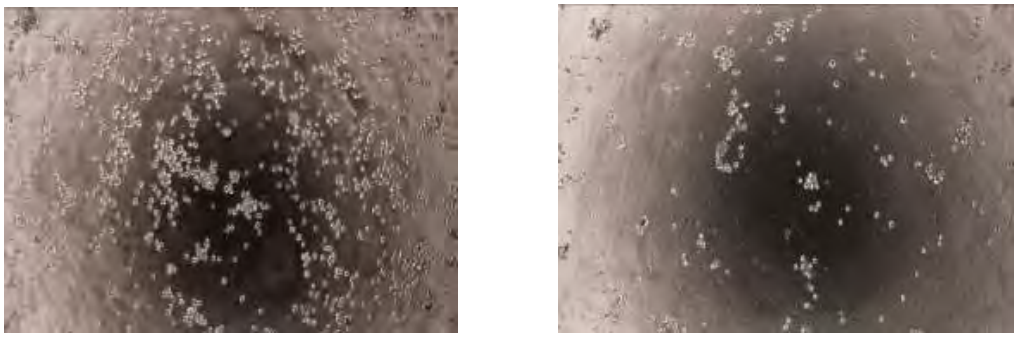
[SEQUENCE]

TQGICR NRVTDDVKDV TKLVANLPKD
YKITLKYVPG MDVLPSHCWI SEMVEQLSVS LTDLLDKFSN ISEGLSNYSI
IDKLVKIVDD LVECMEEHSF ENVKKSSKSP EPRLFTPEKF FGIFNRSIDA
FKDLEMVAPK TSECVISSTL TPEKDSRVSV TKPFMLPPVA A

[ACTIVITY]

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 $1x10^4$cells/well and incubated for 72h in the presence or absence of various concentrations of SCF at 37°C. 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 37°C.

Cell proliferation of TF-1 cells after incubation with SCF for 72h observed by inverted microscope was shown in Figure 1.



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.

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.

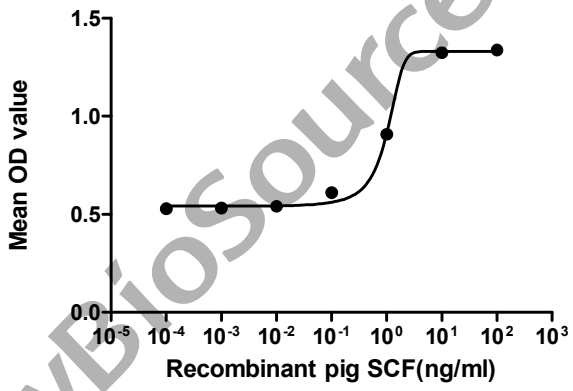


Figure 2. The dose-effect curve of SCF on TF-1 cells

[IDENTIFICATION]

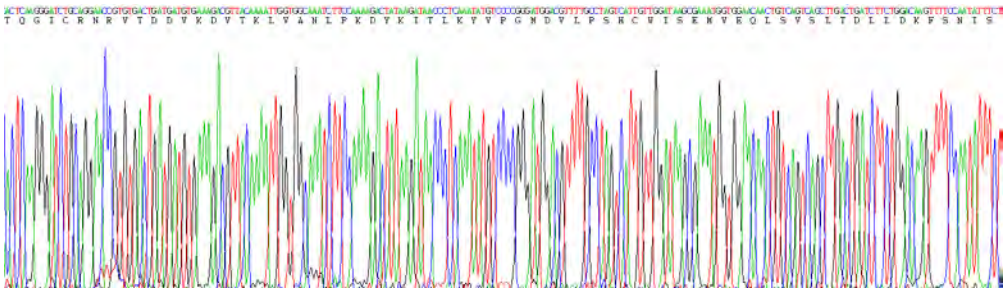


Figure 3. Gene Sequencing (extract)

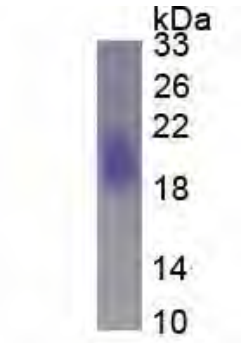


Figure 4. SDS-PAGE

Sample: Active recombinant SCF, Porcine

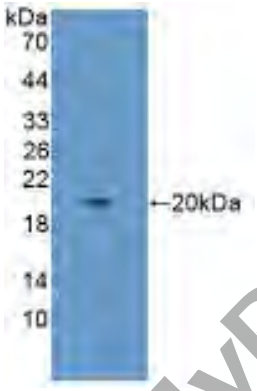


Figure 5. Western Blot

Sample: Recombinant SCF, Porcine;

Antibody: Rabbit Anti-Porcine SCF Ab

[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.