

## Anti-SCF/KITLG Antibody Picoband™

Catalog Number: A01254-1

### About KITLG

Stem Cell Factor (also known as SCF, kit-ligand, KL, or steel factor) is a cytokine that binds to the c-Kit receptor (CD117). The SCF gene is mapped to 12q21.32. 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 may be used along with other cytokines to culture HSCs and hematopoietic progenitors. The expansion of these cells ex-vivo (outside the body) would allow advances in bone-marrow transplantation, in which HSCs are transferred to a patient to re-establish blood formation. One of the problems of injecting SCF for therapeutic purposes is that SCF activates mast cells. The injection of SCF has been shown to cause allergic-like symptoms and the proliferation of mast cells and melanocytes.

### Overview

Product Name	Anti-SCF/KITLG Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-SCF/KITLG Antibody Picoband™ catalog # A01254-1. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg NaN <sub>3</sub> .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	KITLG: P21583

### Technical Details

Immunogen	E. coli-derived human SCF recombinant protein (Position: E26-A190).
Predicted Reactive Species	Human
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized

Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.5ug/ml</p> <p>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml</p>

## Anti-SCF/KITLG Antibody Picoband™ (A01254-1) Images

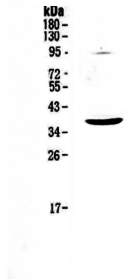


Figure 1. Western blot analysis of SCF using anti-SCF antibody (A01254-1).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: mouse HEPA1-6 whole cell lysates.

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes.

Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-SCF antigen affinity purified polyclonal antibody (Catalog # A01254-1) at 0.5 ug/mL overnight at 4 then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for SCF at approximately 37KD. The expected band size for SCF is at 31KD.

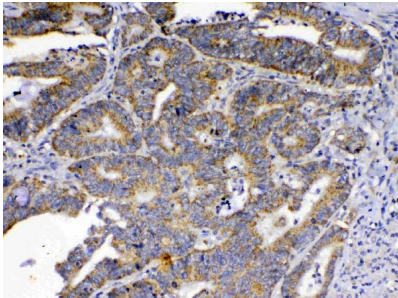


Figure 2. IHC analysis of SCF using anti-SCF antibody (A01254-1).

SCF was detected in paraffin-embedded section of human colon cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-SCF Antibody (A01254-1) overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

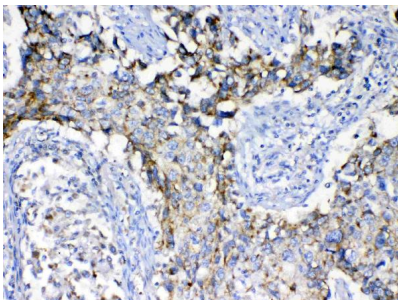
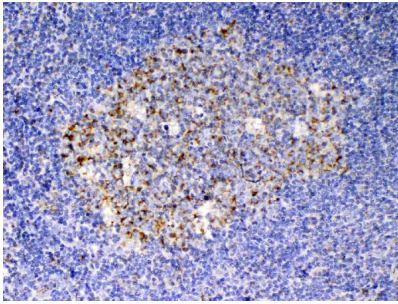


Figure 3. IHC analysis of SCF using anti-SCF antibody (A01254-1).

SCF was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-SCF Antibody (A01254-1) overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

Figure 4. IHC analysis of SCF using anti-SCF antibody (A01254-1).

SCF was detected in paraffin-embedded section of human



tonsil . Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-SCF Antibody (A01254-1) overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

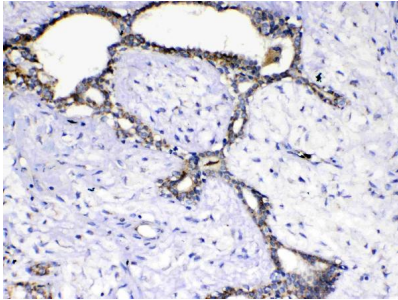


Figure 5. IHC analysis of SCF using anti-SCF antibody (A01254-1). SCF was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-SCF Antibody (A01254-1) overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

### 3 Publications Citing This Product

1. PubMed ID: 28033308, Effects of Polysaccharide of Gastrodia Elata Blume and Electro-Acupuncture on Expressions of Brain-Derived Neurotrophic Factor and Stem Cell Factor Protein in Caudate Putamen of Focal Cerebral Ischemia Rats
2. PubMed ID: 17657848, Selective tropism of liver stem cells to hepatocellular carcinoma in vivo.
3. PubMed ID: 29246405, Selective tropism of liver stem cells to hepatocellular carcinoma in vivo.

Visit [bosterbio.com/anti-scf-picoband-trade-antibody-a01254-1-boster.html](http://bosterbio.com/anti-scf-picoband-trade-antibody-a01254-1-boster.html) to see all 3 publications.

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