

## Anti-SCF KITLG Antibody

Catalog Number: A01254

### Introduction

CD3epsilon is a 20kD chain, which together with CD3lambda, CD3delta, and CD3zeta, and a T cell receptor (alpha/beta or gamma/delta) form the CD3/T-cell receptor complex. It is a specific marker for T lymphocytes, NK T cells, and some thymocytes. Crosslinking of TCR initiates an intracellular signaling cascade resulting in cellular activation and proliferation. The OKT3 antibody has been reported to have potent immunosuppressive properties in vivo and has been proved effective in the treatment of renal, heart, and liver allograft rejection.

This antibody is routinely tested by flow cytometric analysis. Flow cytometry and other applications were tested during antibody development or are reported in the literature.

### Application Information

Each lot of this antibody has been quality control tested by flow cytometric analysis of human PBMCs. For flow cytometric staining, the recommended use of this antibody is  $\leq 0.5\mu\text{g}$  per  $1 \times 10^6$  cells in  $100\mu\text{l}$  of staining volume followed by a secondary fluorescent conjugated anti-mouse antibody. However, it is strongly suggested that the antibody reactivity be empirically titrated for optimal performance in the application of interest.

### About KITLG

Stem cell factor (SCF) is the ligand of the c-Kit oncogene and is expressed by various structural and inflammatory cells in the airways. Binding of SCF by the c-Kit receptor leads to homodimerization of the receptor and the activation of signalling pathways such as PI-3, PLC-gamma, Jak/STAT, and MAP kinase pathways. SCF expression leads to the induction of mast cell survival and the expression and release of histamine, pro-inflammatory cytokines and chemokines. The inhibition of the SCF/c-Kit pathway leads to a decrease in histamine levels, mast cell and eosinophil infiltration, IL-4 production and airway hyperresponsiveness, suggesting this pathway may be a useful therapeutic target in inflammatory diseases such as asthma. At least two isoforms of SCF are known to exist.

### Overview

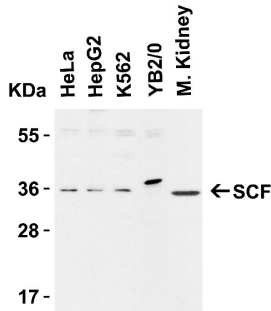
Product Name	Anti-SCF KITLG Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-SCF KITLG Antibody (Catalog # A01254). Tested in ELISA, WB, IHC-P, IF applications. This antibody reacts with Human, Mouse, Rat.
Conjugate	Biotin
Application	ELISA, IF, IHC-P, WB
Clonality	Polyclonal SK7
Formulation	SCF Antibody is supplied in PBS containing 0.02% sodium azide.
Storage Instructions	SCF antibody can be stored at 4°C for three months and -20°C, stable for up to one year. Avoid

	repeated freeze-thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Host	Rabbit
Uniprot ID	P21583

## Technical Details

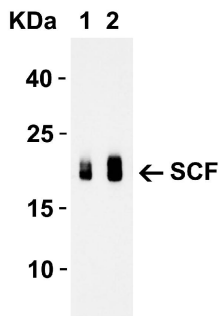
Immunogen	Anti-SCF antibody was raised against a peptide corresponding to 18 amino acids near the center of human SCF. The immunogen is located within amino acids 100-150 of SCF.
Predicted Reactive Species	Bovine
Cross Reactivity	IRAK-4 antibody is predicted to not cross-react with other members of the IRAK protein family.
Isotype	IgG
Form	Liquid
Concentration	1 mg/mL
Purification	SCF Antibody is affinity chromatography purified via peptide column.
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>WB: 1-2 ug/mL; IHC: 2.5 ug/mL; IF: 20 ug/mL.</p> <p>Antibody validated: Western Blot in human, mouse and rat samples; Immunohistochemistry in mouse samples; Immunofluorescence in human samples. All other applications and species not yet tested. Optimal dilutions for each application should be determined by the researcher.</p>

## Anti-SCF KITLG Antibody (A01254) Images



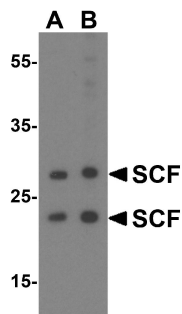
Western Blot Validation in Cell Lines and Tissues of Human, Mouse and Rat

Loading: 15 ug of lysates per lane. Antibodies: SCF A01254 (1 ug/mL), 1h incubation at RT in 5% NFDm/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



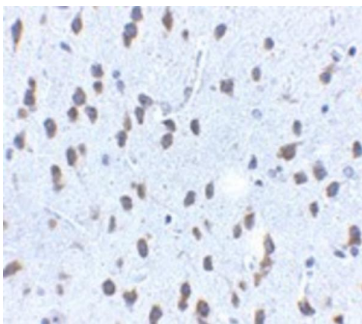
Western Blot Validation with Recombinant Protein

Loading: 30 ng of human SCF recombinant protein per lane. Antibodies: SCF A01254 (Lane 1: 1 ug/mL and Lane 2: 2 ug/mL), 1h incubation at RT in 5% NFDm/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution. Observed at around 20kD.



Western Blot Validation in Human HeLa Cell Lines

Loading: 15 ug of lysates per lane. Antibodies: SCF A01254 (2 ug/mL), 1h incubation at RT in 5% NFDm/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.

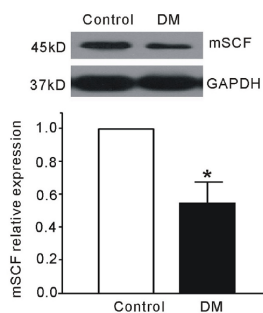
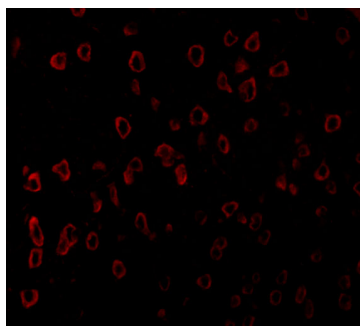


Immunohistochemistry Validation of SCF in Mouse Brain Tissue

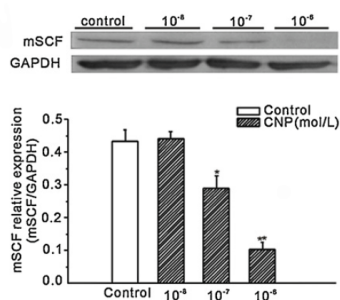
Immunohistochemical analysis of paraffin-embedded mouse brain tissue using anti-SCF antibody (A01254) at 2.5 ug/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4 °C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.

Immunofluorescence Validation of SCF in Human Brain Tissue

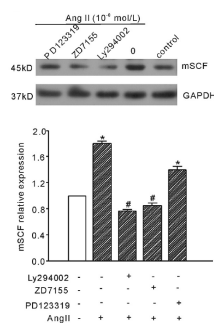
Immunofluorescent analysis of 4% paraformaldehyde-fixed human brain tissue labeling SCF with A01254 at 20 ug/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (red).



Regulation Validation of SCF in Streptozotocin (STZ)-induced Diabetic Mice (Zhang et al.



Regulated Expression Validation of SCF in GSMCs of Normal Mice (Wu et al.



Regulated Expression Validation of SCF in Gastric Smooth Muscle Cells (GSMCs) of Mice (Zhang et al.

## 1 Publications Citing This Product

1. PubMed ID: 10.3892/mmr.2018.8776, Tranilast prevents renal interstitial fibrosis by blocking mast cell infiltration in a rat model of diabetic kidney disease

Visit [bosterbio.com/anti-scf-kitlg-antibody-a01254-boster.html](https://bosterbio.com/anti-scf-kitlg-antibody-a01254-boster.html) to see all 1 publications.

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