bs-0545R **[Primary Antibody]**

SCF Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 4254 **SWISS:** P21583

Target: SCF

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: Stem Cell Factor (SCF), also known as c-Kit ligand (KL), steel factor (SLF) and mast cell growth factor (MGF), is a 30 kDa glycoprotein with broad activities on various tissues, including hematopoietic cells, pigment cells, and primordial germ cells. SCF is secreted by endothelial cells, fibroblasts, and bone marrow stromal cells as a membrane-bound form which may be cleaved to release the soluble form. Both forms are active in promoting colony formation from murine bone marrow cells, but membrane-bound SCF is more effective in promoting hematopoieses in vivo, suggesting a role in cellular interactions between hematopoietic and stromal cells. The soluble form is thought to exist in solution as a noncovalently linked dimer. SCF is structurally related to M-CSF (CSF-1) and Flt-3/Flk-2 Ligand (FL) with all three sharing a similar size, existence of transmembrane and soluble forms, four conserved cysteines, and alternative splicing exon locations, but they share little sequence homology. SCF alone is a modest colony stimulating factor. However, in the presence of other cytokines such as EPO, TPO, GM-CSF, G-CSF, M-CSF, IL-3, and IL-7, SCF is a potent costimulant that works synergistically to increase the size of myeloid, erythroid or lymphoid lineage colonies without influencing the lineage differentiation of the progenitors.

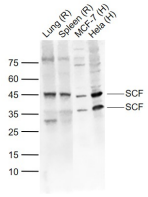
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)
Flow-Cyt (1ug/Test)

Reactivity: Human, Mouse, Rat (predicted: Goat)

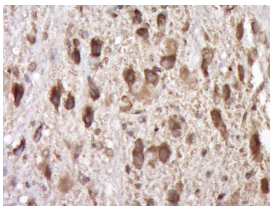
Predicted MW.: 31 kDa

Subcellular Location: Secreted ,Cell membrane ,Cytoplasm

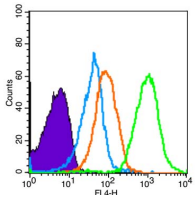
VALIDATION IMAGES



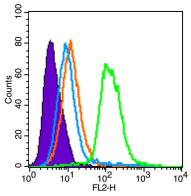
Sample: Lane 1: Lung (Rat) Lysate at 40 ug Lane 2: Spleen (Rat) Lysate at 40 ug Lane 3: MCF-7 (Human) Cell Lysate at 30 ug Lane 4: Hela (Human) Cell Lysate at 30 ug Primary: Anti-SCF (bs-0545R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 31 kD Observed band size: 45/35 kD



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SCF) Polyclonal Antibody, Unconjugated (bs-0545R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Blank control (Black line): Mouse spleen(Black). Primary Antibody (green line): Rabbit Anti-SCF antibody (bs-0545R) Dilution: 3µg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody (white blue line): Goat anti-rabbit IgG-AF647 Dilution: 1µg /test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 10,000 events was performed.



Blank control (Black line): U87MG (Black). Primary Antibody (green line): Rabbit Anti-SCF antibody (bs-0545R) Dilution: 1μg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG. Secondary Antibody (white blue line): Goat anti-rabbit IgG-PE Dilution: 1μg /test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then were incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature.The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

SELECTED CITATIONS

- **[IF=5.572]** Ozge Goktepe. et al. The effect of different doses of nonylphenol on the blood-testicular barrier integrity, hormone level, and DNA damage in the testes of rats. FOOD CHEM TOXICOL. 2023 Jul;177:113816 IHC ;Rat. 37164249
- **[IF=4.7]** Lei Wu. et al. Naringenin Promotes Gastrointestinal Motility in Mice by Impacting the SCF/c-Kit Pathway and Gut Microbiota. FOODS. 2024 Jan;13(16):2520 WB ;Mouse. 39200447
- **[IF=5.195]** Di Zhang. et al. Effects of Banxia Xiexin Decoction on apoptosis of interstitial cells of Cajal via regulation of MiR-451-5p: An in vivo and in vitro study. J ETHNOPHARMACOL. 2023 Oct;314:116606 WB ;Rat. 37192721
- **[IF=4.929]** Zhou L et al.Protective Effects of Uncultured Adipose‐Derived Stromal Vascular Fraction on Testicular Injury Induced by Torsion‐Detorsion in Rats. (2018) Stem Cells Translational Medicine WB ;Rat. 30569668
- **[IF=4.5]** Junnan Wu. et al. Aqueous extracts of Elsholtzia ciliata and Hovenia dulcis ameliorate loperamide-induced constipation in mice by promoting intestinal peristalsis and barrier function and the abundance of intestinal beneficial bacteria. FRONT MICROBIOL. 2025 May;16: IHC ;Mouse. 40432966