Anti-mouse SCF

FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	**103-PA08AG**
Size:	50 µg
Lot. No.:	According to product label
Country of origin:	Germany

Preparation: Produced from sera of rabbits pre-immunized with highly pure (>95%) recombinant mouse SCF (Lys26-Ala189) derived from E. coli.

Target Background

Synonyms:	Mast cell growth factor, Stem cell factor, c-Kit ligand

Stem cell factor (SCF), also known as c-kit ligand (KL), mast cell growth factor (MGF), and steel factor (SLF), is a widely expressed 28-40 kDa type I transmembrane glycoprotein. It promotes the survival, differentiation, and mobilization of multiple cell types including myeloid, erythroid, megakaryocytic, lymphoid, germ cell, and melanocyte progenitors. SCF is a primary growth and activation factor for mast cells and eosinophils. Mature mouse SCF consists of a 189 amino acid (aa) extracellular domain (ECD), a 23 aa transmembrane segment, and a 36 aa cytoplasmic tail. The ECD shows both N-linked and O-linked glycosylation. Proteolytic cleavage at two alternate sites in the extracellular juxta-membrane region releases a 25 kDa soluble molecule which is comparable to the only form produced by Steel-dickie mutant mice. An alternately spliced isoform of mouse SCF lacks 28 aa that encompasses the primary proteolytic recognition site. Rat SCF is active on mouse and human cells, but human SCF is only weakly active on mouse cells. Non-covalent dimers of transmembrane or soluble SCF interact with the receptor tyrosine kinase SCF R/ckit to trigger receptor dimerization and signaling. SCF assists in the recovery of cardiac function following myocardial infarction by increasing the number of cardiomyocytes and vascular channels.

References

1. Sette et al, Int J Dev Biol 44 (2000)
2. Kapur et al, Blood 100 (2002)
3. Bashamboo et al, J Cell Sci 119 (2006)
4. Huang et al, Cell 63 (1990)
5. Arakawa et al, J Biol Chem 266 (1991)
6. Majumdar et al, J Biol Chem 269 (1994)
7. Brannan et al, Proc Natl Acad Sci (1991)
8. Flanagan et al, Cell 64 (1991)
9. Martin et al, Cell 63 (1990)

Database References Antigen

Protein RefSeq:	NP_038626.1
Uniprot ID:	P20826
mRNA RefSeq:	NM_013598.2

Product Specifications

Species reactivity	mouse
Clone/Ab feature	Rabbit IgG
Cross reactivity	ND
Host	rabbit
Clonality	polyclonal
Purification	Antigen affinity purified
Immunogen	Recombinant mouse SCF (RT #M30-025)
Formulation	lyophilized
Buffer	PBS

Stability: The lyophilized antibody is stable at room temperature for up to 1 month. The reconstituted antibody is stable for at least two weeks at 2-8°C. Frozen aliquots are stable for at least 6 months when stored at -20°C.

Reconstitution: Centrifuge vial prior to opening. Reconstitute in sterile water to a concentration of 0.1-1.0 mg/ml.

AVOID REPEATED FREEZE AND THAW CYCLES!

Applications

Western Blot:	Use 2-5 µg/ml

NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!

Anti-mouse SCF

Handling/Applications

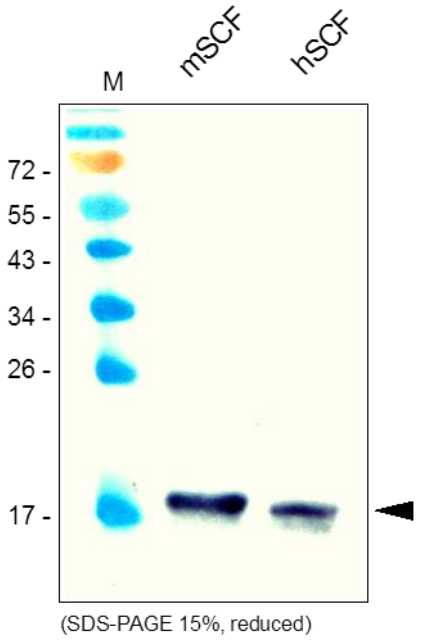

Figure 1. Western Analysis of anti-mouse SCF. Samples were loaded in 15% SDS-polyacrylamide gel under reducing conditions.
Lane 1: MWM (kDa); lane 2: rm SCF; lane 3: rh SCF.