# abcam

### Product datasheet

## Anti-SCF antibody ab9753

#### 1 References

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Ov	erv	iew

Product name Anti-SCF antibody

**Description** Rabbit polyclonal to SCF

Host species Rabbit

Tested applications Suitable for: WB, ELISA, Neutralising

Species reactivity Reacts with: Mouse

Immunogen Highly pure (>98%) recombinant mSCF (mouse Stem Cell Factor)

#### **Properties**

Form Lyophilised:Reconstitute with 200µl of sterile water.

**Storage instructions** Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

term.

**Storage buffer** PBS, pH 7.4, no preservative, sterile filtered

Purity Immunogen affinity purified

Clonality Polyclonal
Isotype unknown
Light chain type unknown

#### **Applications**

Our Abpromise guarantee covers the use of ab9753 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 0.1 - 0.2 μg/ml.
ELISA		Use a concentration of 0.5 μg/ml.
Neutralising		Use at an assay dependent dilution. To yield one-half maximal inhibition [ND $_{50}$ ] of the biological activity of mSCF (25.0 ng/ml), a concentration of 0.6 - 0.65 $\mu$ g/ml of this antibody is required.

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#### **Target**

#### **Function**

Ligand for the receptor-type protein-tyrosine kinase KIT. Plays an essential role in the regulation of cell survival and proliferation, hematopoiesis, stem cell maintenance, gametogenesis, mast cell development, migration and function, and in melanogenesis. KITLG/SCF binding can activate several signaling pathways. Promotes phosphorylation of PlK3R1, the regulatory subunit of phosphatidylinositol 3-kinase, and subsequent activation of the kinase AKT1. KITLG/SCF and KIT also transmit signals via GRB2 and activation of RAS, RAF1 and the MAP kinases MAPK1/ERK2 and/or MAPK3/ERK1. KITLG/SCF and KIT promote activation of STAT family members STAT1, STAT3 and STAT5. KITLG/SCF and KIT promote activation of PLCG1, leading to the production of the cellular signaling molecules diacylglycerol and inositol 1,4,5-trisphosphate. KITLG/SCF acts synergistically with other cytokines, probably interleukins.

Involvement in disease

 $\label{prop:continuous} \mbox{Hyperpigmentation with or without hypopigmentation, familial progressive}$ 

Deafness, congenital, unilateral or asymmetric

Sequence similarities

Belongs to the SCF family.

Developmental stage

Acts in the early stages of hematopoiesis.

Post-translational modifications

A soluble form (sKITLG) is produced by proteolytic processing of isoform 1 in the extracellular

domain.

Found in two differentially glycosylated forms, LMW-SCF and HMW-SCF. LMW-SCF is fully N-glycosylated at Asn-145, partially N-glycosylated at Asn-90, O-glycosylated at Ser-167, Thr-168 and Thr-180, and not glycosylated at Asn-97 or Asn-118. HMW-SCF is N-glycosylated at Asn-

118, Asn-90 and Asn-145, O-glycosylated at Ser-167, Thr-168 and Thr-180, and not

glycosylated at Asn-97.

A soluble form exists as a cleavage product of the extracellular domain.

**Cellular localization** 

Secreted; Cell membrane and Cytoplasm. Cytoplasm, cytoskeleton. Cell membrane. Cell

projection, lamellipodium. Cell projection, filopodium.

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