

## Product datasheet

# Recombinant human SCF protein ab54340

### Overview

---

<b>Product name</b>	Recombinant human SCF protein
<b>Protein length</b>	Protein fragment

### Description

---

<b>Nature</b>	Recombinant
<b>Source</b>	Insect cells

### Amino Acid Sequence

<b>Species</b>	Human
<b>Sequence</b>	EGICR NRVTNNVKDV TKLVANLPKD YMITLKYPG MDVLP SHCWI SEMVVQLSDS LTDLLDKFSN ISEGLSNYSI IDKLVNIVDD LVECVKENSS KDLKKSFKSP EPRLFTPEEF FRIFNRSIDA FKDFVVASET SDCVVSSTLS PEKDSRVSVT KPFMLPPVA
<b>Amino acids</b>	26 to 189

### Specifications

---

Our [Abpromise guarantee](#) covers the use of **ab54340** in the following tested applications.

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

<b>Applications</b>	SDS-PAGE
<b>Purity</b>	> 95 % SDS-PAGE. Purity: 95% by SDS-PAGE and visualised by silver stain Endotoxin level: < 0.1 ng per ug of SCF
<b>Form</b>	Lyophilised

### Preparation and Storage

---

<b>Stability and Storage</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles. None This product is an active protein and may elicit a biological response in vivo, handle with caution.
------------------------------	---

**Reconstitution** Reconstitute in 10 mM acetic acid to a concentration of 0.1-1.0 mg/ml. This solution can be then diluted into other aqueous buffers.

## General Info

---

**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 PIK3R1, 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** 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.

**Please note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

## Our Abpromise to you: Quality guaranteed and expert technical support

---

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
  
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <http://www.abcam.com/abpromise> or contact our technical team.

## Terms and conditions

---

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors