

Product datasheet

Recombinant human SCF protein ab54340

Overview

Product name	Recombinant human SCF protein
Protein length	Protein fragment

Description

Nature	Recombinant
Source	Insect cells

Amino Acid Sequence

Species	Human
Sequence	EGICR NRVTNNVKDV TKLVANLPKD YMITLKYPG MDVLP SHCWI SEMVVQLSDS LTDLLDKFSN ISEGLSNYSI IDKLVNIVDD LVECVKENSS KDLKKSFKSP EPRLFTPEEF FRIFNRSIDA FKDFVVASET SDCVVSSTLS PEKDSRVSVT KPFMLPPVA
Amino acids	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.

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

Preparation and Storage

Stability and Storage	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.
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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.

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