

Product datasheet

Recombinant Human SCF protein (Fc Chimera) ab216224

Description

Product name	Recombinant Human SCF protein (Fc Chimera)	
Purity	>= 98 % SDS-PAGE.	
Endotoxin level	< 0.060 Eu/μg	
Expression system	CHO cells	
Accession	P21583-2	
Protein length	Protein fragment	
Animal free	No	
Nature	Recombinant	
Species	Human	
Sequence	EGICRNRVTNNVKDVTKLVANLPKDYMITLKYPGMDVLP SHCWISEMVV QLSDSLTDLLDKFSNISEGLSNYSIIDKLVNVDLVECCKE NSSKDLKK SFKSPEPRLFTPEEFFRIFNRSIDAFKDFVVASETSDCVV SSTLSPEKGG AKNPPGDSSLHW	
Predicted molecular weight	18 kDa	
Amino acids	26 to 187	
Additional sequence information	Fused to the N-terminus of the Fc region of human IgG1 (NP_003985.2).	

Specifications

Our [Abpromise guarantee](#) covers the use of **ab216224** 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
Form	Lyophilized

Preparation and Storage

Stability and Storage Shipped at 4°C. Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.

Constituent: 100% PBS

Lyophilised from 0.2µm filtered solution.

Reconstitution

Reconstitute 10µg vial in 100µl sterile water. Add 1X PBS to the desired protein concentration.

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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