Stem Cell Factor (SCF) ELISA Kit for Mouse

PRODUCT OVERVIEW

Product Name	Stem Cell Factor (SCF), ELISA Kit
Full Product Name	Mouse Stem Cell Factor (SCF) Mini Samples ELISA Kit
Product Gene Name	SCF elisa kit
Product Synonym Names	KITLG; MGF; SF; KL1; Kitl; FPH2; Kit-Ligand; Steel Factor; Mast Cell Growth Factor; Steel factor; Familial Progressive Hyperpigmentation 2
Species Reactivity	Mouse
Assay Type	Double-antibody Sandwich
Samples	Serum, Plasma, Tissue homogenates, Cell lysates, Cell culture supernates and other biological fluids
Detection Range	15.6-1,000pg/mL
Sensitivity	5.9pg/mL
Specificity	This assay has high sensitivity and excellent specificity for detection of Mini Samples Stem Cell Factor (SCF). No significant cross-reactivity or interference between Mini Samples Stem Cell Factor (SCF) and analogues was observed.
Preparation and Storage	The stability of kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition. To minimize extra influence on the performance, operation procedures and lab conditions, especially room temperature, air humidity, incubator temperature should be strictly controlled. It is also strongly suggested that the whole assay is performed by the same operator from the beginning to the end.
Molecular Weight	27,614 Da
3D Structure	ModBase 3D Structure for P20826
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.
Application	Enzyme-linked immunosorbent assay for Antigen Detection.
Intra-assay Precision (Precision within an assay)	3 samples with low, middle and high level Mini Samples Stem Cell Factor (SCF) were tested 20 times on one plate, respectively.
Inter-assay Precision (Precision between assays)	3 samples with low, middle and high level Mini Samples Stem Cell Factor (SCF) were tested on 3 different plates, 8 replicates in each plate.
CV(%) =	SD/meanX100
Intra-Assay	CV<10%
Inter-Assay	CV<12%
Product Categories/Family for SCF elisa kit	Cytokine; Hematology
ISO Certification	Manufactured in an ISO 9001:2015 and ISO 13485:2016 Certified Laboratory.

Related Product Information for SCF elisa kit	The test principle applied in this kit is Sandwich enzyme immunoassay. The microtiter plate provided in this kit has been pre-coated with an antibody specific to Mini Samples Stem Cell Factor (SCF). Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody specific to Mini Samples Stem Cell Factor (SCF). Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. After TMB substrate solution is added, only those wells that contain Mini Samples Stem Cell Factor (SCF), biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450nm ± 10nm. The concentration of Mini Samples Stem Cell Factor (SCF) in the samples is then determined by comparing the O.D. of the samples to the standard curve.
Other Notes	Small volumes of SCF elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for SCF purchase	MBS2089504 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Stem Cell Factor (SCF) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing SCF. The ELISA analytical biochemical technique of the MBS2089504 kit is based on SCF antibody-SCF antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect SCF antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, SCF. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SCF. It may not necessarily be applicable to this product.

NCBI GI #	7305267
NCBI GeneID	17311
NCBI Accession #	NP_038626.1
UniProt Primary Accession #	P20826
UniProt Secondary Accession #	P97332; Q3TNJ7; Q62524; Q64222; Q921N5
UniProt Related Accession #	P20826
GenBank Nucleotide #	NM_013598.3
NCBI Official Full Name	kit ligand isoform 1
NCBI Official Synonym Full Names	kit ligand
NCBI Official Symbol	Kitl
NCBI Official Synonym Symbols	Gb; SF; Sl; Clo; Con; Mgf; SCF; SLF; blz; Kitlg; contrasted
UniProt Protein Name	Kit ligand
UniProt Synonym Protein Names	Hematopoietic growth factor KL; Mast cell growth factor; MGF
Protein Family	Kit ligand
UniProt Gene Name	Kitlg
UniProt Synonym Gene Names	Kitl; Mgf; Sl; Slf; MGF; SCF; sKITLG
NCBI Protein Information	kit ligand

UniProt Comments for SCF	SCF: 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. Homodimer, non-covalently linked (Probable). Heterotetramer with KIT, binding two KIT molecules; thereby mediates KIT dimerization and subsequent activation by autophosphorylation. Belongs to the SCF family. 3 isoforms of the human protein are produced by alternative splicing. Protein type: Membrane protein, integral Chromosomal Location of Human Ortholog: 10 D1|10 51.4 cM Cellular Component: cytoplasm; extracellular space; filopodium; integral to membrane; lamellipodium; plasma membrane Molecular Function: cytokine activity; protein binding; stem cell factor receptor binding Biological Process: embryonic hemopoiesis; germ cell development; germ cell programmed cell death; negative regulation of apoptosis; negative regulation of mast cell apoptosis; neural crest cell migration; ovarian follicle development; positive regulation of cell proliferation; positive regulation of DNA replication; positive regulation of leukocyte migration; positive regulation of MAP kinase activity; positive regulation of melanocyte differentiation; positive regulation of myeloid leukocyte differentiation; positive regulation of peptidyl-tyrosine phosphorylation; positive regulation of Ras protein signal transduction
Research Articles on SCF	**1.** SCF/c-kit signaling may potentiate chronic hypoxia-induced vascular remodeling by modulating ERK activation. Inhibition of c-kit activity may be a potential strategy to alleviate PH
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