

### Human SCF ELISA Kit (Kit Ligand) ab108901

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#### Overview

**Product name** Human SCF ELISA Kit (Kit Ligand)

**Detection method** Colorimetric

**Precision**

Intra-assay

Sample	n	Mean	SD	CV%
Overall				4.8%

Inter-assay

Sample	n	Mean	SD	CV%
Overall				9.2%

**Sample type** Serum, Plasma

**Assay type** Sandwich (quantitative)

**Sensitivity** = 0.11 ng/ml

**Range** 0.156 ng/ml - 40 ng/ml

**Recovery** 95 %

**Assay time** 4h 00m

**Assay duration** Multiple steps standard assay

**Species reactivity** **Reacts with:** Human

**Product overview**

Abcam's Stem Cell Factor (Kit Ligand) Human *in vitro* ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of Stem Cell Factor concentrations in Human plasma, serum and cell culture supernatants.

A Stem Cell Factor specific antibody has been precoated onto 96-well plates and blocked. Standards or test samples are added to the wells and subsequently a Stem Cell Factor specific biotinylated detection antibody is added and then followed by washing with wash buffer. Streptavidin-Peroxidase Conjugate is added and unbound conjugates are washed away with wash buffer. TMB is then used to visualize Streptavidin-Peroxidase enzymatic reaction. TMB is catalyzed by Streptavidin-Peroxidase to produce a blue color product that changes into yellow after adding acidic stop solution. The density of yellow coloration is directly proportional to the amount of Stem Cell Factor captured in plate.

Store kit at 4°C immediately upon receipt, apart from the Streptavidin-Peroxidase Conjugate & Biotinylated Antibody, which should be stored at -20°C.

**The entire kit may be stored at -20°C for long term storage before reconstitution - Avoid repeated freeze-thaw cycles.**

**Platform** Microplate

## Properties

**Storage instructions** Store at -20°C. Please refer to protocols.

Components	1 x 96 tests
100X Streptavidin-Peroxidase Conjugate	1 x 80µl
10X Diluent M Concentrate	1 x 20ml
20X Wash Buffer Concentrate	2 x 30ml
50X Biotinylated Human Stem Cell Factor Antibody	1 x 120µl
Chromogen Substrate	1 x 7ml
Sealing Tapes	3 units
Stem Cell Factor Microplate (12 x 8 well strips)	1 unit
Stem Cell Factor Standard	1 vial
Stop Solution	1 x 11ml

## 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

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

## modifications

domain.

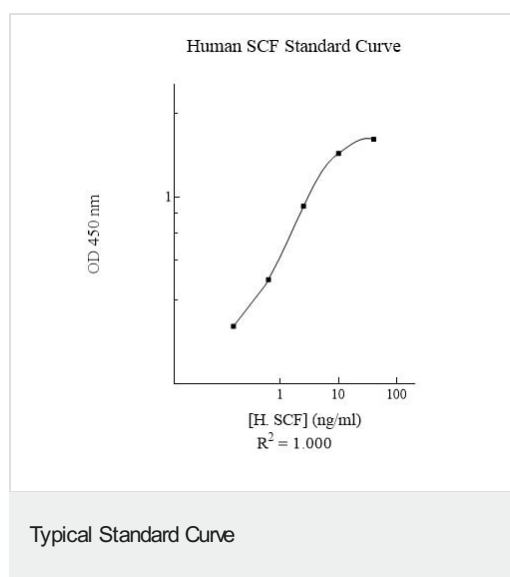
Found in two differentially glycosylated forms, LMW-SCF and HMW-SCF. LMW-SCF is fully N-glycosylated at Asn-145, partially N-glycosylated at Asn-90, O-glycosylated at Ser-167, Thr-168 and Thr-180, and not glycosylated at Asn-97 or Asn-118. HMW-SCF is N-glycosylated at Asn-118, Asn-90 and Asn-145, O-glycosylated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

## Images



Representative Standard Curve using ab108901.

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