

Mouse SCF ELISA Kit α b100740

5 References 3 Images

Overview

Product name	Mouse SCF ELISA Kit
Detection method	Colorimetric
Sample type	Cell culture supernatant, Serum, Plasma
Assay type	Sandwich (quantitative)
Sensitivity	< 5 pg/ml
Range	2.74 pg/ml - 2000 pg/ml
Recovery	96 %

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	98.64	85% - 106%
Serum	95.86	85% - 105%
Plasma	94.56	84% - 104%

Assay duration Multiple steps standard assay

Species reactivity **Reacts with:** Mouse, Rat

Product overview Abcam’s SCF Mouse ELISA (Enzyme-Linked Immunosorbent Assay) kit is an *in vitro* enzyme-linked immunosorbent assay for the quantitative measurement of mouse SCF in serum, plasma and cell culture supernatants.

This assay employs an antibody specific for mouse SCF coated on a 96-well plate. Standards and samples are pipetted into the wells and SCF present in a sample is bound to the wells by the immobilized antibody. The wells are washed and biotinylated anti-mouse SCF antibody is added. After washing away unbound biotinylated antibody, HRP-conjugated streptavidin is pipetted to the wells. The wells are again washed, a TMB substrate solution is added to the wells and color develops in proportion to the amount of SCF bound. The Stop Solution changes the color from blue to yellow, and the intensity of the color is measured at 450 nm.

Platform Microplate

Properties

Storage instructions

Store at -20°C. Please refer to protocols.

Components	1 x 96 tests
20X Wash Buffer	1 x 25ml
5X Assay Diluent B	1 x 15ml
90X HRP-Streptavidin Concentrate	1 x 200µl
Assay Diluent A	1 x 30ml
Biotinylated anti-Mouse SCF	2 vials
Recombinant Mouse SCF Standard (lyophilized)	2 vials
SCF Microplate (12 x 8 wells)	1 unit
Stop Solution	1 x 8ml
TMB One-Step Substrate Reagent	1 x 12ml

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.

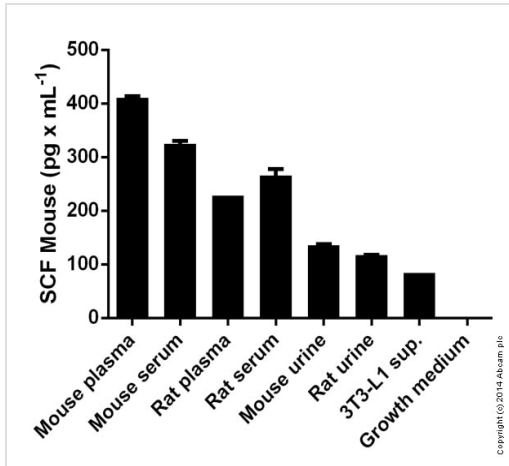
Post-translational modifications

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

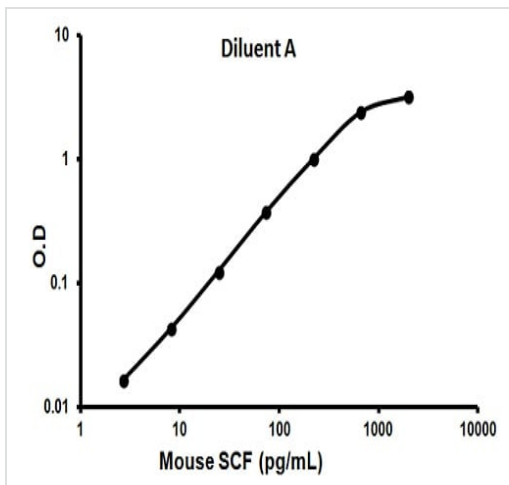
Secreted; Cell membrane and Cytoplasm. Cytoplasm, cytoskeleton. Cell membrane. Cell projection, lamellipodium. Cell projection, filopodium.

Images



SCF measured in various fluids showing quantity (pg) per mL of tested sample

Sandwich ELISA - ab100740 SCF Mouse ELISA Kit



Representative standard curve using ab100740

Typical standard curve



Representative standard curve using ab100740

Typical standard curve

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