

Rat SCF ELISA Kit | SCF elisa kit

SCF (Rat) OmniKine ELISA Kit

CATALOG #
AAA315703

REACTIVITY
Rat

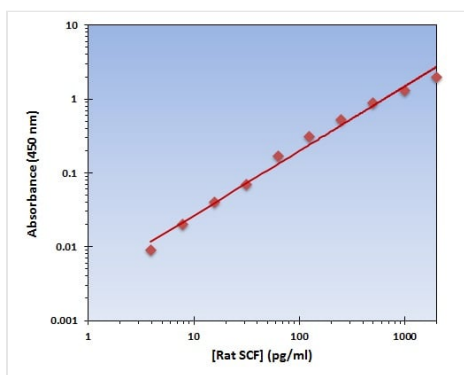
PRODUCT SYNONYMS

SCF; SCF (Rat) OmniKine ELISA Kit; Kit ligand; Hematopoietic growth factor KL; Mast cell growth factor; Stem cell factor; MGF; c-Kit ligand; Kitl; Mgf; SCF elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Rat
Specificity	The OmniKine Rat SCF ELISA is capable of recognizing both recombinant and naturally produced Rat SCF proteins. The antigens listed below were tested at 50 ng/ml and exhibited less than 10% cross reactivity. Human: SCF The antigens listed below were tested at 50 ng/ml and exhibited less than 1% cross reactivity or interference. Murine: SCF The antigens listed below were tested at 50 ng/ml and did not exhibit significant cross reactivity or interference. Human: G-CSF, GM-CSF, M-CSF, PDGF-AA, PDGF-AB, PDGF-BB, SCGFalpha, SCGFbeta Murine: G-CSF, GM-CSF, M-CSF Rat: GM-SCF, IL-1alpha, IL-1beta, IL-3beta, IL-6, IL-7
Form/Format	12 x 8-Well Microstrips
Sequence Length	273
Samples	Cell lysates, serum and plasma
Assay Type	Quantitative Sandwich
Sensitivity	16-2000 pg/ml
Preparation and Storage	Store entire kit at 4 degree C until use.

IMAGES



Application Data

The OmniKine Rat SCF ELISA Kit allows for the detection and quantification of endogenous levels of natural and/or recombinant Rat SCF proteins within the range of 16-2000 pg/ml.

ADDITIONAL INFORMATION

Related Product Information for SCF elisa kit

Principle of the Assay: The OmniKine™ Rat SCF ELISA Kit contains the components necessary for quantitative determination of natural or recombinant Rat SCF concentrations within any experimental sample including cell lysates, serum and plasma. This particular immunoassay utilizes the quantitative technique of a "Sandwich" Enzyme-Linked Immunosorbent Assay (ELISA) where the target protein (antigen) is bound in a "sandwich" format by the primary capture antibodies coated to each well-bottom and the secondary detection antibodies added subsequently by the investigator. The capture antibodies coated to the bottom of each well are specific for a particular epitope on Rat SCF while the user-added detection antibodies bind to epitopes on the captured target protein. Amid each step of the procedure, a series of wash steps must be performed to ensure the elimination of non-specific binding between proteins to other proteins or to the solid phase. After incubation and "sandwiching" of the target antigen, a peroxidase enzyme is conjugated to the constant heavy chain of the secondary antibody (either covalently or via Avidin/Streptavidin-Biotin interactions), allowing for a colorimetric reaction to ensue upon substrate addition. When the substrate TMB (3, 3', 5, 5'-Tetramethylbenzidine) is added, the reaction catalyzed by peroxidase yields a blue color that is representative of the antigen concentration. Upon sufficient color development, the reaction can be terminated through addition of Stop Solution (2 N Sulfuric Acid) where the color of the solution will turn yellow. The absorbance of each well can then be read by a spectrophotometer, allowing for generation of a standard curve and subsequent determination of protein concentration.!!Background/Introduction: Rat SCF or Stem Cell Factor, also known as Kit Ligand or Mast Cell Growth Factor, is a 273 amino acid cytokine protein encoded by the Kitlg gene located at locus 7q13 on chromosome 7. After initial synthesis of the peptide, the 25 residue signal sequence is proteolytically removed, thus allowing for SCF to properly fold and mature. SCF, a homodimeric member of the SCF family, essentially stimulates the proliferation of mast cells. Also, it has the ability to augment the proliferation of both myeloid and lymphoid hematopoietic progenitors in bone marrow culture as well as mediate cell-cell adhesion. These functions are performed through acting synergistically with other cytokines and interleukins. Acting in the early stages of hematopoiesis, a soluble form is produced by proteolytic processing of isoform 1 in the extracellular domain.

NCBI AND UNIPROT INFORMATION

NCBI GI #	33667068
NCBI GeneID	60427
NCBI Accession #	NP_068615.1
NCBI GenBank Nucleotide #	NM_021843.4
UniProt Accession #	P21581; Q9QWZ4; Q9Z2E7
Molecular Weight	27,681 Da
NCBI Official Full Name	kit ligand isoform 1
NCBI Official Synonym Full Names	KIT ligand
NCBI Official Symbol	Kitlg
NCBI Official Synonym Symbols	Mgf; SCF; Kitl
NCBI Protein Information	kit ligand
UniProt Protein Name	Kit ligand
UniProt Gene Name	Kitlg
UniProt Synonym Gene Names	Kitl; Mgf; MGF; SCF; sKITLG

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/rat-elisa-kits/scf/315703>