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Anti-SCF Antibody
Catalog # ABO12695

Specification

Anti-SCF Antibody - Product Information

Application	**WB**
Primary Accession	P21583
Host	**Rabbit**
Reactivity	**Human**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Kit ligand/Mast cell growth factor(KITLG) detection. Tested with WB, ELISA in Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-SCF Antibody - Additional Information

Gene ID 4254

Other Names
Kit ligand, Mast cell growth factor, MGF, Stem cell factor, SCF, c-Kit ligand, Soluble KIT ligand, sKITLG, KITLG, MGF, SCF

Calculated MW
30899 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human, -
ELISA , 0.1-0.5 µg/ml, Human

Subcellular Localization
Isoform 1: Cell membrane; Single-pass type I membrane protein.

Protein Name
Kit ligand

Contents
Each vial contains 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3. Carrier free (No BSA) form available in stock. If you want this antibody carrier free please specify Carrier Free" or "No BSA" in your order note. "

Immunogen
E. coli-derived human SCF recombinant protein(Position: E26-A190).

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage

At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities
Belongs to the SCF family.

Anti-SCF Antibody - Protein Information

Name KITLG (HGNC:6343)

Synonyms MGF, SCF

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.

Cellular Location
[Isoform 1]: Cell membrane; Single-pass type I membrane protein [Soluble KIT ligand]: Secreted.

Anti-SCF Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-SCF Antibody - Images

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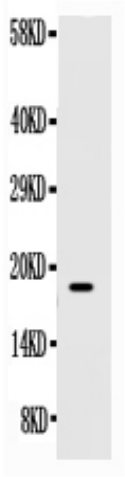


Figure. Western blot analysis of SCF using anti- SCF antibody (ABO12695). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.Lane : Recombinant Human SCF Protein 0.5ng,After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti- SCF antigen affinity purified polyclonal antibody (Catalog # ABO12695) at 0.5 Î¼g/mL overnight at 4Â°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for SCF at approximately 18KD. The expected band size for SCF is at 18KD.

Anti-SCF Antibody - Background

Stem Cell Factor(also known as SCF, kit-ligand, KL, or steel factor) is a cytokine that binds to the c-Kit receptor(CD117). The SCF gene is mapped to 12q21.32. SCF can exist both as a transmembrane protein and a soluble protein. This cytokine plays an important role in hematopoiesis(formation of blood cells), spermatogenesis, and melanogenesis. SCF may be used along with other cytokines to culture HSCs and hematopoietic progenitors. The expansion of these cells ex-vivo(outside the body) would allow advances in bone-marrow transplantation, in which HSCs are transferred to a patient to re-establish blood formation. One of the problems of injecting SCF for therapeutic purposes is that SCF activates mast cells. The injection of SCF has been shown to cause allergic-like symptoms and the proliferation of mast cells and melanocytes.