abcam

ab215092

Alexa Fluor® 594 Anti-SCF antibody [EP665Y]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	Alexa Fluor® 594
Excitation/Emission	Ex: 590nm, Em: 617nm
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EP665Y
Purification technique	Affinity purification Protein A
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt (Intra)

Tested

Species	Human

Dilution info	1/50
Notes	-

ICC/IF

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information KITLG

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.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks

Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle, Store in the dark

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

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Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Stem Cell Factor (SCF) also known as kit ligand c-kit ligand or KITLG is a critical protein involved in cell signaling. It usually appears as a 30 kDa glycoprotein. SCF is widely expressed in various tissues including the bone marrow brain and fetal liver. Its major mechanical function is to bind to the c-KIT receptor triggering various intracellular pathways that influence cell proliferation survival and

	differentiation. Aside from its other names SCF in mouse plasma is often monitored including in assays like c-kit ligand ELISA.
Biological function summary	SCF acts as an indispensable growth factor promoting hematopoiesis and melanogenesis. It plays a significant role in the regulation of hematopoietic stem cells and mast cells. SCF and its receptor c-KIT form a complex that activates signaling pathways essential for these processes. This protein is also involved in gametogenesis by aiding the proliferation and survival of primordial germ cells. SCF's action is not limited to mammals as studies demonstrate its activity in other species like mouse SCF.
Pathways	SCF impacts multiple important biological systems by engaging with c-KIT. The SCF/c-KIT interaction contributes to the MAPK/ERK pathway influencing cell division and growth. It also plays a role in the PI3K/AKT pathway that governs cell survival. Beyond its direct association with c-KIT SCF's involvement in these pathways connects it to several other proteins like RAS and PI3K which are important for signal transduction.
Associated diseases and disorders	SCF has associations with several pathological conditions. Dysregulation of the SCF/c-KIT pathway can lead to disorders like mastocytosis and certain leukemias. The overactivation or mutations in c-KIT are often implicated in these diseases due to its cooperative action with SCF. Additionally aberrant SCF signaling can contribute to the progression of gastrointestinal stromal tumors (GIST) where c-KIT has known relevance. Understanding SCF's role can therefore provide insights into diagnostic and therapeutic strategies for these conditions.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

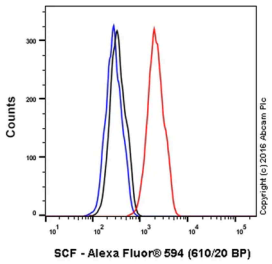
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

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1 product image



Flow Cytometry (Intracellular) - Alexa Fluor® 594 Anti-SCF antibody [EP665Y] (ab215092)

SCF Flow Cytometry (Intracellular) staining using rabbit Anti-SCF antibody

Overlay histogram showing MCF7 cells stained with ab215092 (red line). The cells were fixed with 4% formaldehyde (10 min) and then permeabilized with 0.1% PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS / 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (ab215092, 1/50 dilution) for 30 min at 22°C.
Isotype control antibody (black line) was Rabbit IgG (monoclonal) Alexa Fluor® 594 (ab208568) used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5,000 events were collected using a 50mW Yellow/Green laser (561nm) and 610/20 bandpass filter.

This antibody gave a positive signal in MCF7 cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Triton X-100 for 15 min used under the same conditions.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.