abcam

Product datasheet

Anti-SCF antibody [EP665Y] ab52603

Recombinant RabMAb

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Overview

Product name	Anti-SCF antibody [EP665Y]
Description	Rabbit monoclonal [EP665Y] to SCF
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, IHC-P, ICC/IF
Species reactivity	**Reacts with:** Human, Recombinant fragment
Immunogen	Synthetic peptide within Human SCF aa 50-150 (N terminal). The exact sequence is proprietary. Database link: P21583
Positive control	Human kidney carcinoma tissue.
General notes	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 production For more information see here. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP665Y

Isotype	IgG

Applications

The Abpromise guarantee Our Abpromise guarantee covers the use of ab52603 in the following tested applications.

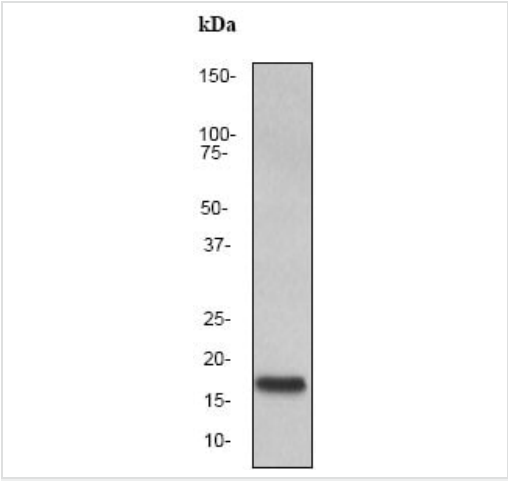
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/20 - 1/50. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB	★★★☆☆ (3)	1/10000. Predicted molecular weight: 31 kDa.
IHC-P	★★★★★ (1)	Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF	★★★★☆ (2)	1/100 - 1/500.

Target

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



Western blot - Anti-SCF antibody [EP665Y] (ab52603)

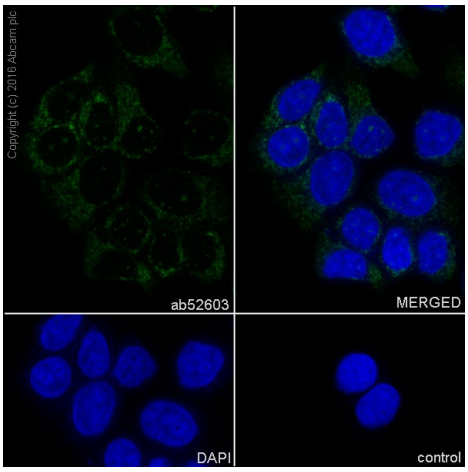
Anti-SCF antibody [EP665Y] (ab52603) at 1/10000 dilution + recombinant protein (5ng)

Secondary

HRP-labelled goat anti-rabbit at 1/2000 dilution

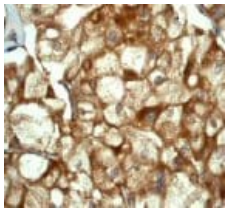
Predicted band size: 31 kDa

Observed band size: 18 kDa



Immunocytochemistry/ Immunofluorescence - Anti-SCF antibody [EP665Y] (ab52603)

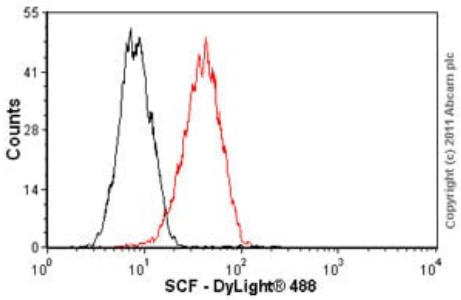
Immunocytochemistry/Immunofluorescence analysis of MCF-7 (human breast carcinoma) labelling SCF with purified ab52603 at 1/500. Cells were fixed with 100% methanol. An Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody (Ab150077). Nuclei counterstained with DAPI (blue).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SCF antibody [EP665Y] (ab52603)

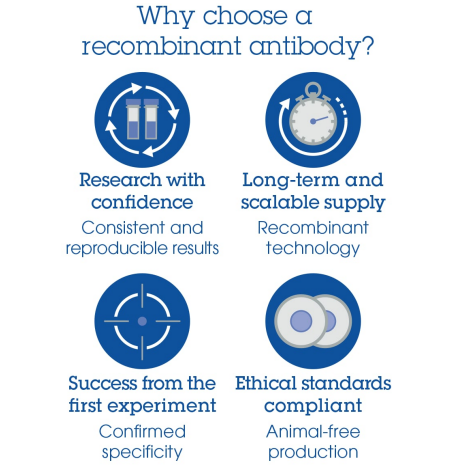
Immunohistochemical analysis of paraffin-embedded human kidney carcinoma tissue using ab52603 at a dilution of 1/100-1/250.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-SCF antibody [EP665Y] (ab52603)

Overlay histogram showing MCF-7 cells stained with ab52603 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab52603, 1/20 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (ab96899) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit monoclonal IgG (1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in MCF-7 cells fixed with methanol (5 min) used under the same conditions.Please note that Abcam do not have data for use of this antibody on non-fixed cells. We welcome any customer feedback.



Anti-SCF antibody [EP665Y] (ab52603)

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