abcam

Product datasheet

Anti-SNF5/SMARCB1 antibody [EPR12014-77] ab192864

KO VALIDATED Recombinant RabMAb

2 References 8 Images

Overview

Product name	Anti-SNF5/SMARCB1 antibody [EPR12014-77]
Description	Rabbit monoclonal [EPR12014-77] to SNF5/SMARCB1
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), IHC-P, IP, ICC/IF, WB
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant full length protein. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Daudi, HEK293T, HeLa, Jurkat and K562 cell lysate. IHC-P: Human kidney tissue; Human squamous cell carcinoma of cervix tissue. ICC/IF: HeLa cells. Flow Cyt (intra): Jurkat cells.
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 long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 59% PBS, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR12014-77
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab192864 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)		1/110. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
IHC-P		1/500 - 1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IP		1/30.
ICC/IF		1/100.
WB		1/10000 - 1/50000. Predicted molecular weight: 44 kDa.

Target

Function

Core component of the BAF (hSWI/SNF) complex. This ATP-dependent chromatin-remodeling complex plays important roles in cell proliferation and differentiation, in cellular antiviral activities and inhibition of tumor formation. The BAF complex is able to create a stable, altered form of chromatin that constrains fewer negative supercoils than normal. This change in supercoiling would be due to the conversion of up to one-half of the nucleosomes on polynucleosomal arrays into asymmetric structures, termed altosomes, each composed of 2 histones octamers. Stimulates in vitro the remodeling activity of SMARCA4/BRG1/BAF190A. Involved in activation of CSF1 promoter. Belongs to the neural progenitors-specific chromatin remodeling complex (npBAF complex) and the neuron-specific chromatin remodeling complex (nBAF complex). During neural development a switch from a stem/progenitor to a post-mitotic chromatin remodeling mechanism occurs as neurons exit the cell cycle and become committed to their adult state. The transition from proliferating neural stem/progenitor cells to post-mitotic neurons requires a switch in subunit composition of the npBAF and nBAF complexes. As neural progenitors exit mitosis and differentiate into neurons, npBAF complexes which contain ACTL6A/BAF53A and PHF10/BAF45A, are exchanged for homologous alternative ACTL6B/BAF53B and DPF1/BAF45B or DPF3/BAF45C subunits in neuron-specific complexes (nBAF). The npBAF complex is essential for the self-renewal/proliferative capacity of the multipotent neural stem cells. The nBAF complex along with CREST plays a role regulating the activity of genes essential for dendrite growth (By similarity). Plays a key role in cell-cycle control and causes cell cycle arrest in G0/G1. Also involved in vitamin D-coupled transcription regulation via its association with the WINAC complex, a chromatin-remodeling complex recruited by vitamin D receptor (VDR), which is required for the ligand-bound VDR-mediated transrepression of the CYP27B1 gene.

Involvement in disease

Defects in SMARCB1 are a cause of rhabdoid tumor (RDT) [MIM:609322]; also known as malignant rhabdoid tumor (MRT). RDT are a highly malignant group of neoplasms that usually occur in early childhood. SMARCB1/INI1 is also frequently inactivated in epithelioid sarcomas.

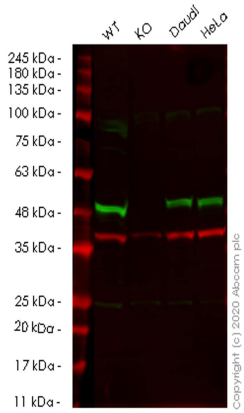
Defects in SMARCB1 are a cause of schwannomatosis (SCHWA) [MIM:162091]; also called congenital cutaneous neurilemmomatosis. Schwannomas are benign tumors of the peripheral nerve sheath that usually occur singly in otherwise normal individuals. Multiple schwannomas in the same individual suggest an underlying tumor-predisposition syndrome. The most common such syndrome is NF2. The hallmark of NF2 is the development of bilateral vestibular-nerve schwannomas; but two-thirds or more of all NF2-affected individuals develop schwannomas in other locations, and dermal schwannomas may precede vestibular tumors in NF2-affected children. There have been several reports of individuals with multiple schwannomas who do not show evidence of vestibular schwannoma. Clinical report suggests that schwannomatosis is a clinical entity distinct from other forms of neurofibromatosis.

Sequence similarities Belongs to the SNF5 family.

Post-translational modifications Phosphorylated upon DNA damage, probably by ATM or ATR.

Cellular localization Nucleus.

Images



Western blot - Anti-SNF5/SMARCB1 antibody [EPR12014-77] (ab192864)

All lanes : Anti-SNF5/SMARCB1 antibody [EPR12014-77] (ab192864) at 1/1000 dilution

Lane 1 : Wild-type HEK293T cell lysate
Lane 2 : SMARCB1 knockout HEK293T cell lysate
Lane 3 : Daudi cell lysate
Lane 4 : HeLa cell lysate

Lysates/proteins at 20 µg per lane.

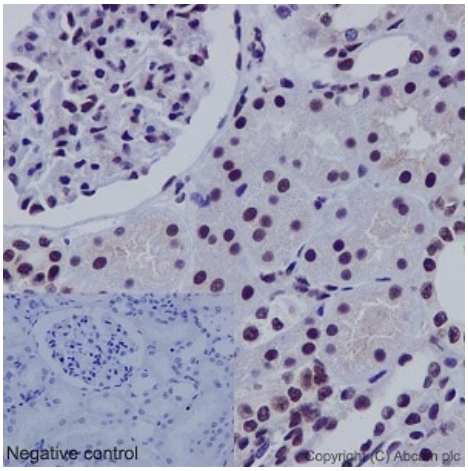
Secondary
All lanes : Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) at 1/10000 dilution

Predicted band size: 44 kDa
Observed band size: 50 kDa

Lanes 1-4: Merged signal (red and green). Green - ab192864 observed at 50 kDa. Red - loading control **ab8245** observed at 36 kDa.

ab192864 Anti-SNF5/SMARCB1 antibody [EPR12014-77] was shown to specifically react with SNF5/SMARCB1 in wild-type HEK293T cells. Loss of signal was observed when knockout cell line **ab267269** (knockout cell lysate **ab257688**) was used. Wild-type and SNF5/SMARCB1 knockout samples were subjected to

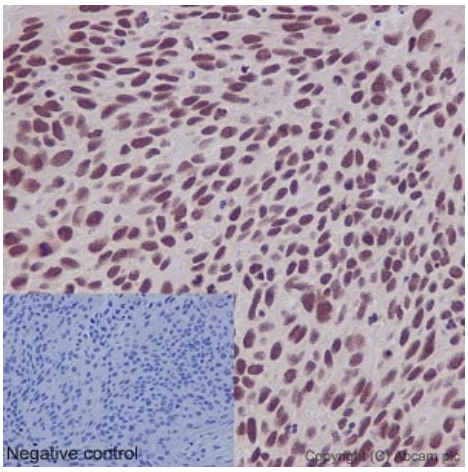
SDS-PAGE. ab192864 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SNF5/SMARCB1 antibody [EPR12014-77] (ab192864)

Immunohistochemical analysis of paraffin embedded Human kidney tissue sections labeling SNF5/SMARCB1 using ab192864 at a 1/1000 dilution. A prediluted HRP Polymer for Rabbit IgG was used as the secondary. Hematoxylin counterstain.

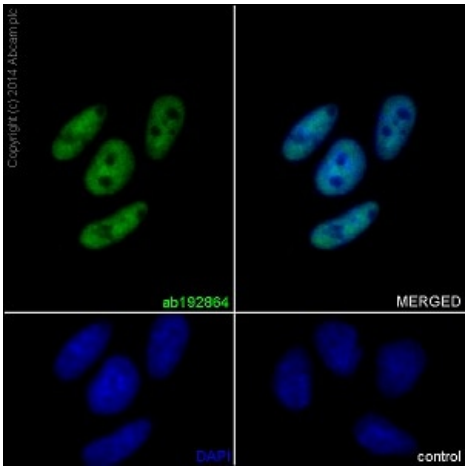
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SNF5/SMARCB1 antibody [EPR12014-77] (ab192864)

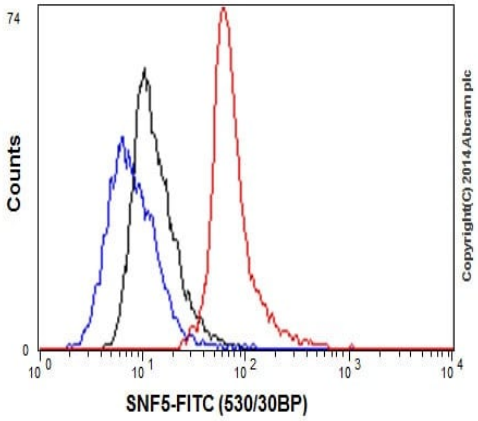
Immunohistochemical analysis of paraffin embedded Human squamous cell carcinoma of cervix tissue sections labeling SNF5/SMARCB1 using ab192864 at a 1/1000 dilution. A predilutedHRP Polymer for Rabbit IgG was used as the secondary. Hematoxylin counterstain.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



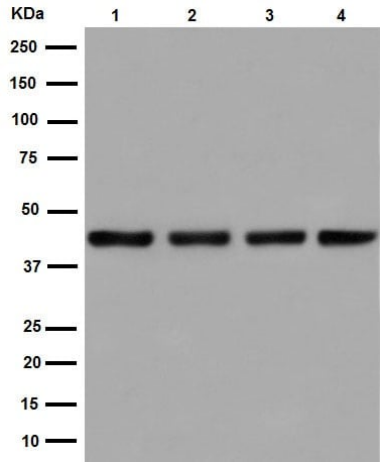
Immunocytochemistry/ Immunofluorescence - Anti-SNF5/SMARCB1 antibody [EPR12014-77] (ab192864)

Immunofluorescent analysis of 4% paraformaldehyde fixed HeLa cells labeling SNF5/SMARCB1 using ab192864 at a 1/500 dilution. A Goat anti rabbit IgG (Alexa Fluor®488) (**ab150077**) was used as the secondary at a 1/400 dilution. Counterstain DAPI. Cells were permeabilized using 0.1% Triton X-100.



Flow Cytometry (Intracellular) - Anti-SNF5/SMARCB1 antibody [EPR12014-77] (ab192864)

Intracellular flow cytometric analysis of Jurkat cells labeling SNF5/SMARCB1 using ab192864 at a 1/110 dilution (red). Goat anti rabbit IgG (FITC) used as the secondary antibody at a 1/150 dilution. Isotype control Rabbit monoclonal IgG (black). Unlabeled/control cells without incubation with primary and secondary antibody (blue). Cells were fixed in 2% paraformaldehyde.



Western blot - Anti-SNF5/SMARCB1 antibody [EPR12014-77] (ab192864)

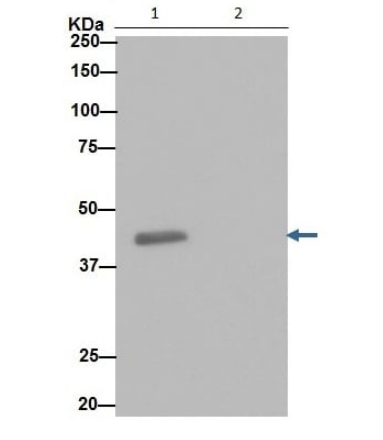
All lanes : Anti-SNF5/SMARCB1 antibody [EPR12014-77] (ab192864) at 1/50000 dilution

Lane 1 : 293 cell lysate
Lane 2 : HeLa cell lysate
Lane 3 : Jurkat cell lysate
Lane 4 : K562 cell lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 44 kDa



Immunoprecipitation - Anti-SNF5/SMARCB1 antibody [EPR12014-77] (ab192864)

Western blot analysis of K562 cell lysate immunoprecipitated using ab192864 at a 1/30 dilution (lane 1).

Lane 2: PBS instead of K562 lysate

Secondary antibody was anti-rabbit IgG (HRP) specific to the non-reduced form of IgG at a 1/1500 dilution.

Anti-SNF5/SMARCB1 antibody [EPR12014-77]

(ab192864)

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