

Product datasheet

Anti-SMARCC1 antibody ab72503

1 References 3 Images

Overview

Product name	Anti-SMARCC1 antibody
Description	Rabbit polyclonal to SMARCC1
Host species	Rabbit
Tested applications	Suitable for: ICC/IF, WB, IP
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Horse, Dog, Chimpanzee, Rhesus monkey, Gorilla, Orangutan, Elephant 
Immunogen	Synthetic peptide corresponding to a region between residue 1055 and the C-terminus (residue 1105) of human SMARCC1 (NP_003065.2)
Positive control	HeLa whole cell lysate.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.09% Sodium Azide Constituents: 0.1% BSA, Tris buffered saline
Purity	Immunogen affinity purified
Purification notes	ab72503 was affinity purified using an epitope specific to SMARCC1 immobilized on solid support.
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab72503** 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
ICC/IF		Use a concentration of 5 µg/ml.
WB		1/2000 - 1/10000. Detects a band of approximately 160 kDa (predicted molecular weight: 123 kDa).
IP		Use at 2-5 µg/mg of lysate.

Target

Function

Involved in transcriptional activation and repression of select genes by chromatin remodeling (alteration of DNA-nucleosome topology). May stimulate the ATPase activity of the catalytic subunit of the complex. 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. 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.

Tissue specificity

Expressed in brain, heart, muscle, placenta, lung, liver, muscle, kidney and pancreas.

Sequence similarities

Belongs to the SMARCC family.
Contains 1 SANT domain.
Contains 1 SWIRM domain.

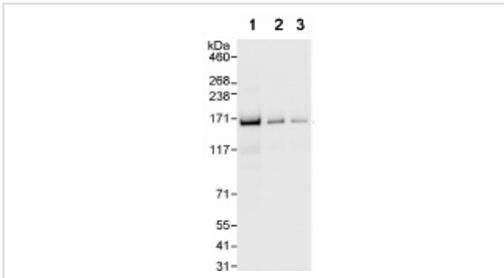
Post-translational modifications

Phosphorylated on undefined residues at the G2/M transition by ERK1 and other kinases. This may contribute to cell cycle specific inactivation of remodeling complexes containing the phosphorylated protein.

Cellular localization

Nucleus.

Images



Western blot - Anti-SMARCC1 antibody (ab72503)

All lanes : Anti-SMARCC1 antibody (ab72503) at 0.04 µg/ml

Lane 1 : HeLa whole cell lysate at 50 µg

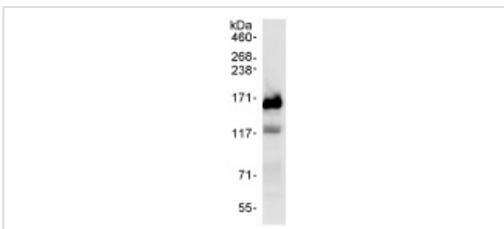
Lane 2 : HeLa whole cell lysate at 15 µg

Lane 3 : HeLa whole cell lysate at 5 µg

Predicted band size: 123 kDa

Observed band size: 160 kDa

Exposure time: 1 second

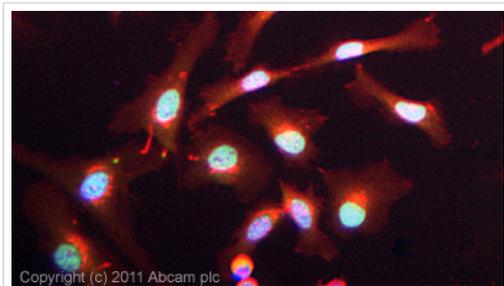


Immunoprecipitation - Anti-SMARCC1 antibody (ab72503)

Detection of SMARCC1 by Western Blot of Immunoprecipitate.

ab72503 at 1µg/ml staining SMARCC1 in HeLa whole cell lysate immunoprecipitated using ab72503 at 3µg/mg lysate (1 mg/IP; 20% of IP loaded/lane).

Detection: Chemiluminescence with exposure time of 1 second.



Immunocytochemistry/ Immunofluorescence - Anti-SMARCC1 antibody (ab72503)

ICC/IF image of ab72503 stained HeLa cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab72503, 5µg/ml) overnight at +4°C. The secondary antibody (green) was [ab96899](#), DyLight® 488 goat anti-rabbit IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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