


Product datasheet

Anti-BAF57/SMARCE1 antibody ab70540

20 References 4 Images

Overview

Product name	Anti-BAF57/SMARCE1 antibody
Description	Rabbit polyclonal to BAF57/SMARCE1
Host species	Rabbit
Tested applications	Suitable for: WB, IP, IHC-P
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Rabbit, Horse, Chimpanzee, Rhesus monkey, Gorilla, Orangutan, Bat 
Immunogen	Synthetic peptide mapping to a region between residue 360 and the C-terminus (residue 411) of human BAF57/SMARCE1 using the numbering given in entry NP_003070.3
Positive control	Whole cell lysate from HeLa, 293T or NIH3T3 cells

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7 Preservative: 0.09% Sodium azide Constituents: 1.815% Tris, 1.764% Sodium citrate, 0.021% PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab70540** 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
WB		1/2000 - 1/10000. Detects a band of approximately 55 kDa (predicted molecular weight: 47 kDa).

Application	Abreviews	Notes
IP		Use at 2-5 µg/mg of lysate.
IHC-P		Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Target

Function

Involved in transcriptional activation and repression of select genes by chromatin remodeling (alteration of DNA-nucleosome topology). 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). Required for the coactivation of estrogen responsive promoters by Swi/Snf complexes and the SRC/p160 family of histone acetyltransferases (HATs). Also specifically interacts with the CoREST corepressor resulting in repression of neuronal specific gene promoters in non-neuronal cells. 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.

Sequence similarities

Contains 1 HMG box DNA-binding domain.

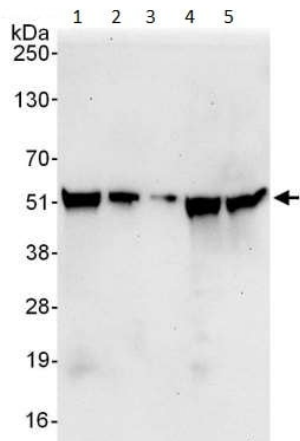
Domain

The HMG domain is essential for CD4 silencing and CD8 activation; mutation of this domain blocks thymus development.

Cellular localization

Nucleus.

Images



Western blot - Anti-BAF57/SMARCE1 antibody (ab70540)

All lanes : Anti-BAF57/SMARCE1 antibody (ab70540) at 0.1 µg/ml

Lane 1 : HeLa whole cell lysate at 5 µg

Lane 2 : HeLa whole cell lysate at 15 µg

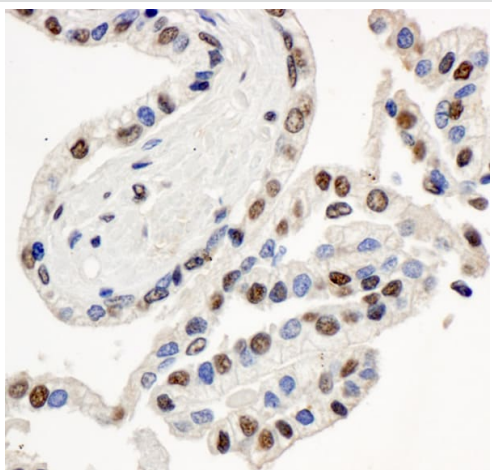
Lane 3 : HeLa whole cell lysate at 50 µg

Lane 4 : 293T cells at 50 µg

Lane 5 : NIH3T3 cells at 50 µg

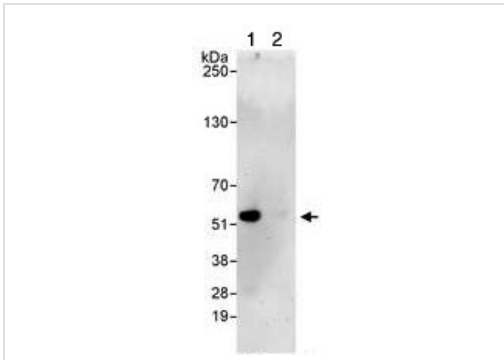
Predicted band size: 47 kDa

Exposure time: 30 seconds



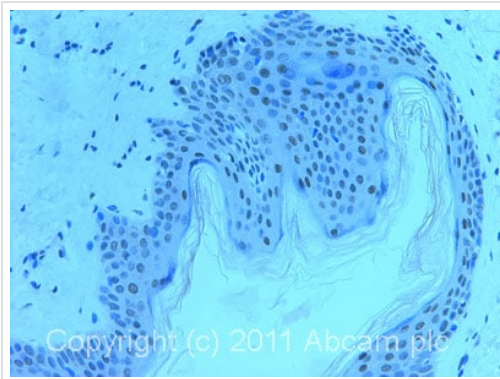
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BAF57/SMARCE1 antibody (ab70540)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human prostate carcinoma tissue labelling BAF57/SMARCE1 with ab70540 at 1/1000 (1µg/ml). Detection: DAB.



Immunoprecipitation - Anti-BAF57/SMARCE1 antibody (ab70540)

1mg of lysate from HeLa cells was immunoprecipitated using ab70540 at 3 μ g/mg of lysate (lane 1) or a control rabbit IgG (lane 2). For the subsequent western blot, 20% of immunoprecipitate was loaded per lane, and ab70540 was used at 1 μ g/ml.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BAF57/SMARCE1 antibody (ab70540)

IHC image of ab70540 staining in normal human skin formalin fixed paraffin embedded tissue section, performed on a Leica BondTM system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab70540, 1 μ g/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

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