abcam

Product datasheet

Anti-BAF57/SMARCE1 antibody [EPR8848] ab131328

KO VALIDATED Recombinant RabMAb

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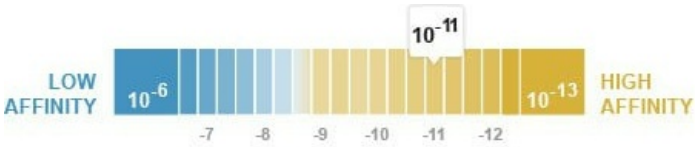
Overview

Product name	Anti-BAF57/SMARCE1 antibody [EPR8848]
Description	Rabbit monoclonal [EPR8848] to BAF57/SMARCE1
Host species	Rabbit
Tested applications	**Suitable for:** ChIP, ICC/IF, WB, IHC-P **Unsuitable for:** Flow Cyt
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Rat
Immunogen	Synthetic peptide within Human BAF57/SMARCE1 aa 1-100. The exact sequence is proprietary.
Positive control	WB: MCF-7, HeLa, Jurkat and Raji cell lysates. IHC-P: Human kidney and skin tissue. IF/ICC: HepG2 cell line ChIP: HeLa 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 -20°C. Stable for 12 months at -20°C.
Dissociation constant (K_D)	$K_D = 7.10 \times 10^{-11}$ M



Learn more about K_D

Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR8848
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab131328 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
ChIP		Use at an assay dependent concentration.
ICC/IF		1/100 - 1/250.
WB	★★★★★ (2)	1/1000 - 1/10000. Predicted molecular weight: 47 kDa.
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

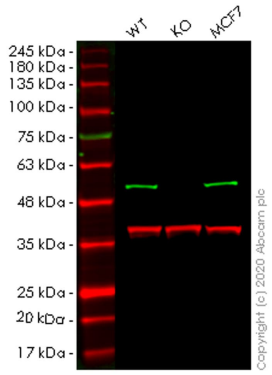
Application notes Is unsuitable for Flow Cyt.

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 [EPR8848] (ab131328)

All lanes : Anti-BAF57/SMARCE1 antibody [EPR8848] (ab131328) at 1/1000 dilution

Lane 1 : Wild-type HeLa cell lysate
Lane 2 : SMARCE1 knockout HeLa cell lysate
Lane 3 : MCF7 cell lysate

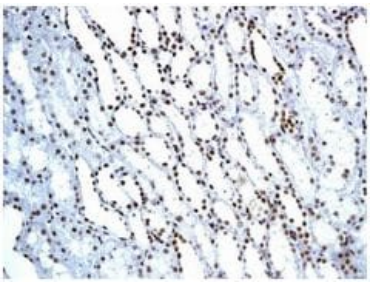
Lysates/proteins at 20 µg per lane.

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

Predicted band size: 47 kDa
Observed band size: 51 kDa

Lanes 1-3: Merged signal (red and green). Green - ab131328 observed at 51 kDa. Red - loading control **ab8245** observed at 36 kDa.

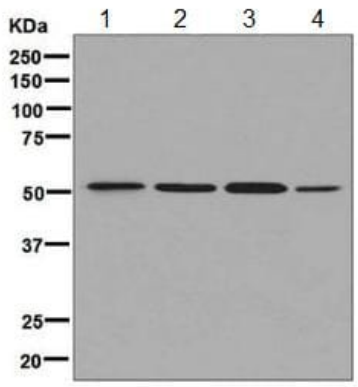
ab131328 Anti-BAF57/SMARCE1 antibody [EPR8848] was shown to specifically react with BAF57/SMARCE1 in wild-type HeLa cells. Loss of signal was observed when knockout cell line **ab265780** (knockout cell lysate **ab258200**) was used. Wild-type and BAF57/SMARCE1 knockout samples were subjected to SDS-PAGE. ab131328 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-BAF57/SMARCE1 antibody [EPR8848] (ab131328)

Immunohistochemical analysis of paraffin-embedded Human kidney tissue labelling BAF57/SMARCE1 with ab131328 at 1/100 dilution.

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



Western blot - Anti-BAF57/SMARCE1 antibody [EPR8848] (ab131328)

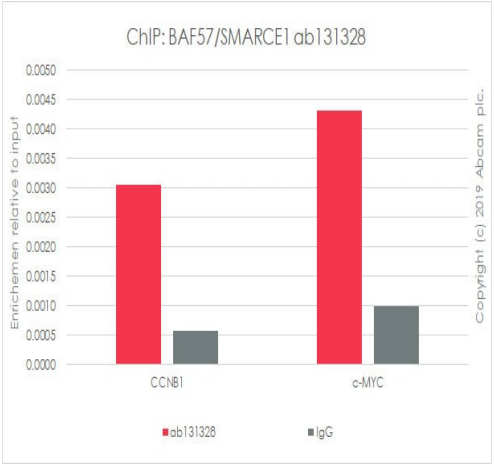
All lanes : Anti-BAF57/SMARCE1 antibody [EPR8848] (ab131328) at 1/1000 dilution

Lane 1 : MCF-7 cell lysate
Lane 2 : HeLa cell lysate
Lane 3 : Jurkat cell lysate
Lane 4 : Raji cell lysate

Lysates/proteins at 10 µg per lane.

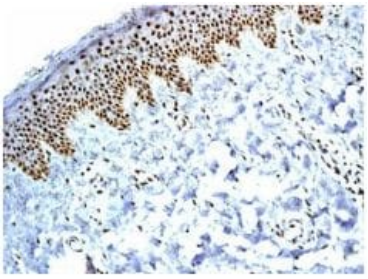
Secondary
All lanes : Goat anti-rabbit HRP at 1/2000 dilution

Predicted band size: 47 kDa



ChIP - Anti-BAF57/SMARCE1 antibody [EPR8848] (ab131328)

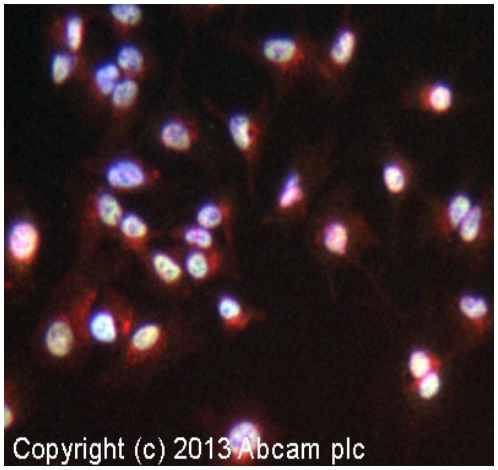
Chromatin was prepared from HeLa cells according to the Abcam Dual X-ChIP protocol*. Cells were fixed with EGS for 30 minutes, then formaldehyde for 10 minutes.
The ChIP was performed with 25 µg of chromatin, 5 µg of ab131328 (red), and 20 µl of Protein A/G sepharose beads. 5 µg of rabbit normal IgG was added to the beads control (gray). The immunoprecipitated DNA was quantified by real time PCR (Sybr green approach).
Primers and probes are located in the first kb of the transcribed region.
*http://www.abcam.com/resources?keywords=X%20ChIP%20protocol



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BAF57/SMARCE1 antibody [EPR8848] (ab131328)

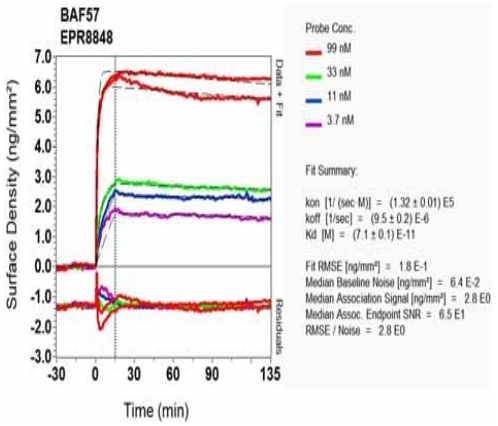
Immunohistochemical analysis of paraffin-embedded Human skin tissue labelling BAF57/SMARCE1 with ab131328 at 1/100 dilution.

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



Immunocytochemistry/ Immunofluorescence - Anti-BAF57/SMARCE1 antibody [EPR8848] (ab131328)

ICC/IF image of ab131328 stained HepG2 cells. The cells were 4% formaldehyde fixed (10 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 (ab131328, 1/100 dilution) 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.

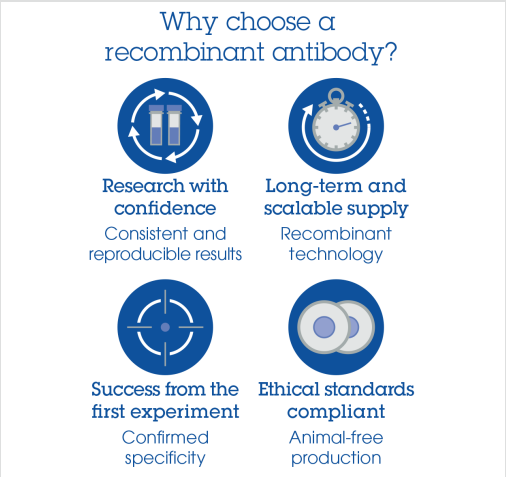


OI-RD Scanning - Anti-BAF57/SMARCE1 antibody [EPR8848] (ab131328)

Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D



Anti-BAF57/SMARCE1 antibody [EPR8848]

(ab131328)

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