abcam

Product datasheet

Anti-SMARCA2 / BRM antibody ab15597

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Overview

Product name	Anti-SMARCA2 / BRM antibody
Description	Rabbit polyclonal to SMARCA2 / BRM
Host species	Rabbit
Specificity	Specific for human Brm from human cell lines (it does not appear to cross react with Brg1 which has been the nemesis of some other so-called Brm-specific antibodies).
Tested applications	**Suitable for:** ICC/IF, WB
Species reactivity	**Reacts with:** Mouse, Human **Predicted to work with:** Rat
Immunogen	Other Immunogen Type. This information is proprietary to Abcam and/or its suppliers.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

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 or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS
Purity	Protein A purified
Clonality	Polyclonal
Isotype	IgG

Applications

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The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab15597 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	★★★★☆ (1)	Use at an assay dependent concentration.
WB	★★★★☆ (3)	Use a concentration of 0.95 µg/ml. Detects a band of approximately 180 kDa (predicted molecular weight: 180 kDa).

Target

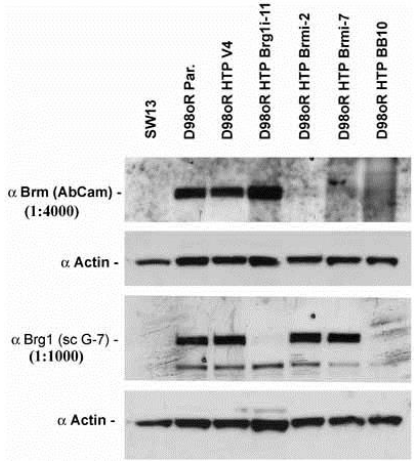
Function Transcriptional coactivator cooperating with nuclear hormone receptors to potentiate transcriptional activation. Also involved in vitamin D-coupled transcription regulation via its association with the WINAC complex, a chromatin-remodeling complex recruited by vitamin D receptor (VDR), which 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.

Involvement in disease Nicolaides-Baraitser syndrome

Sequence similarities Belongs to the SNF2/RAD54 helicase family.
Contains 1 bromo domain.
Contains 1 helicase ATP-binding domain.
Contains 1 helicase C-terminal domain.
Contains 1 HSA domain.
Contains 1 QLQ domain.

Cellular localization Nucleus.

Images

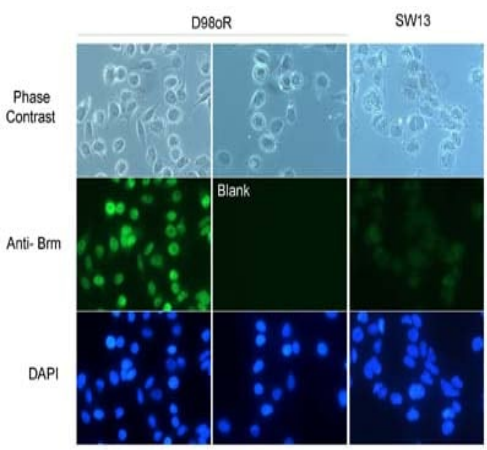


Western blot - Anti-SMARCA2 / BRM antibody (ab15597)

This image is courtesy of Gary Rosson

The WB image shows a composite of 2 western blots illustrating the specificity of the ab15597. The cell lines used here are as follows:

SW13- a human adrenal adenocarcinoma deficient in Brg1 and Brm (Neg. Control)



Immunocytochemistry/ Immunofluorescence - Anti-SMARCA2 / BRM antibody (ab15597)

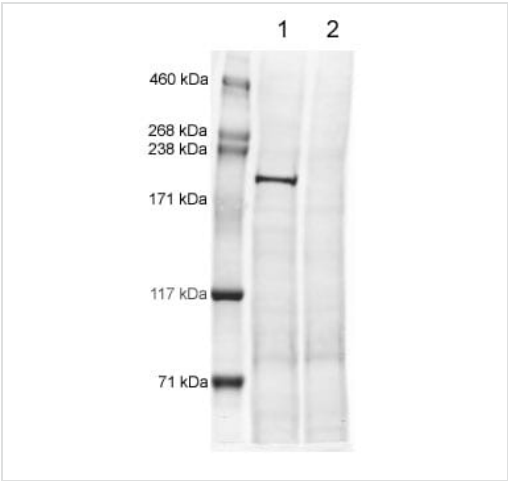
This image is courtesy of Garry Rosson, North Carolina at Chapel Hill

Immunofluorescence using the Brm antibody ab15597.

It appears the antibody works well in IF detecting BRM in D98oR WT cells. The D98oR BB10 blank omitted the primary antibody as a control. However, it was also positive on a cell line that has Brm knocked down by RNAi, (the BB10 cell line). This may be because RNAi is simply a knock down not a knock out or could be that the antibody is so good it is picking up the small amount of Brm remaining in the BB10s (highly possible), or the dilution is too high. Or, it may be that its crossreacting with another protein (though there was no cross rectivity with Brg1 in WB).

Original magnification 400x. ab15597 dilution 1:100.

Work is continuing on characterising this ab in IF.



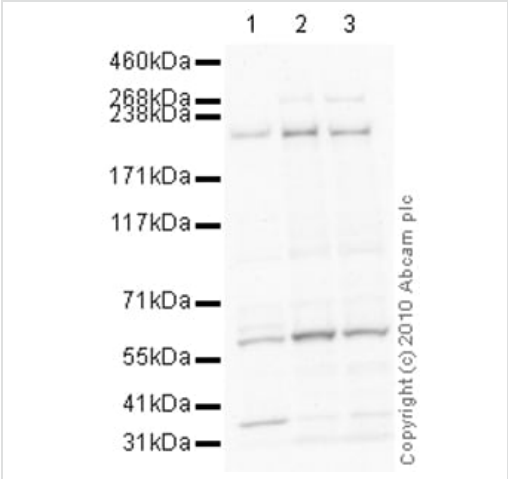
Western blot - Anti-SMARCA2 / BRM antibody (ab15597)

All lanes : Anti-SMARCA2 / BRM antibody (ab15597) at 1 µg/ml

Lane 1 : D98oR (subclone HeLa) positive control lysate
Lane 2 : SW13 (Human adrenal adenocarcinoma) negative control lysate

Lysates/proteins at 20 µg per lane.

Predicted band size: 180 kDa
Observed band size: 180 kDa



Western blot - Anti-SMARCA2 / BRM antibody (ab15597)

All lanes : Anti-SMARCA2 / BRM antibody (ab15597) at 1 µg/ml

Lane 1 : Brain (Mouse) Tissue Lysate
Lane 2 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate
Lane 3 : HEK293 (Human embryonic kidney cell line) Whole Cell Lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 180 kDa
Observed band size: 220 kDa
Additional bands at: 35 kDa, 60 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 5 minutes

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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