abcam

ab248806

Anti-BAF57/SMARCE1 antibody [EPR8849] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR8849
Purification technique	Affinity purification Protein A
Concentration	1.009 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	-

Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

ChIP

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information SMARCE1

Function	Involved in transcriptional activation and repression of select genes by chromatin remodeling (alteration of DNA-nucleosome topology). Component of SWI/SNF chromatin remodeling complexes that carry out key enzymatic activities, changing chromatin structure by altering DNA-histone contacts within a nucleosome in an ATP-dependent manner. 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 postmitotic 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 postmitotic 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.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab248806 is the carrier-free version of ab137081.

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	BAF57 also known as SMARCE1 is a component of the SWI/SNF chromatin-remodeling complex. It aids in regulating the structure of chromatin influencing gene expression. BAF57 weighs approximately 53 kDa and is expressed widely across various tissue types with notable presence in the brain and reproductive organs. This protein plays an important role in reshaping chromatin making it essential for modulating the accessibility of transcription factors to DNA.
Biological function summary	As a part of the SWI/SNF complex BAF57/SMARCE1 facilitates the remodeling of chromatin impacting transcription regulation. By interacting directly with DNA BAF57 allows chromatin sliding and repositioning therefore influencing gene transcription. It plays a significant role in embryonic development neural progenitor cell proliferation and the regulation of cell cycle and differentiation processes. The protein helps modulate responses to hormonal and growth factor signals which are integral for proper cellular control.
Pathways	BAF57/SMARCE1 functions mainly within the WNT signaling and the nuclear hormone receptor pathways. It initiates changes in chromatin architecture impacting gene expression in pathways including those controlling cellular differentiation and development. Proteins like SMARCA4 and ARID1A often work alongside BAF57 in these pathways helping to modulate signal transduction processes that are important for cellular outcomes.

Associated diseases and disorders	BAF57/SMARCE1 has links to certain cancers and Coffin-Siris syndrome. Mutations in this protein or alterations in its expression can disrupt normal SWI/SNF complex function leading to abnormal cell growth and division contributing to tumor development. Additionally genetic deficits in BAF57 have associated with neural development disorders particularly through the altered function of related proteins like SMARCB1 and SMARCA4 further elucidating its role in various pathological conditions.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

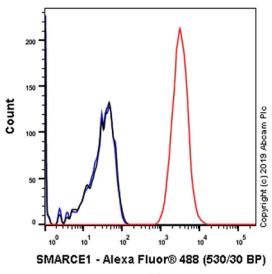
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

3 product images

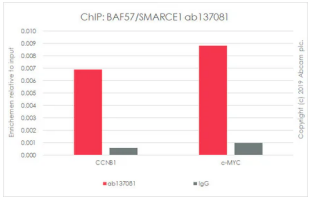


Flow Cytometry (Intracellular) - Anti-BAF57/SMARCE1 antibody [EPR8849] - BSA and Azide free (ab248806)

BAF57/SMARCE1 Flow Cytometry (Intracellular) staining using rabbit Anti-BAF57/SMARCE1 antibody

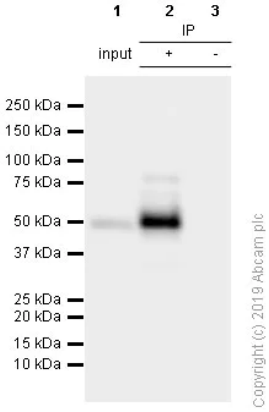
Intracellular Flow Cytometry analysis of MCF7 (Human breast adenocarcinoma epithelial cell) cells labeling BAF57/SMARCE1 with purified ab137081 at 1/100 dilution (10.38µg/mL) (Red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (ab172730) (black). Unlabeled control - Unlabelled cells (blue). This data

was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab137081).



ChIP - Anti-BAF57/SMARCE1 antibody [EPR8849] - BSA and Azide free (ab248806)

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 ab137081 (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.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab137081).



Immunoprecipitation - Anti-BAF57/SMARCE1 antibody [EPR8849] - BSA and Azide free (ab248806)

ab137081 (purified) at 1/20 dilution immunoprecipitating BAF57/SMARCE1 in MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysate 10 µg.

Lane 1 (input): MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysate 10 µg
Lane 2 (+): ab137081 & MCF7 whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab137081 in MCF7 whole cell lysate

For western blotting, ab137081 at 1/500 dilution (0.02 µg/mL) and veriBlot for IP secondary antibody (HRP) (ab131366) at 1/1000 dilution was used.
Blocking and diluting buffer: 5% NFDM /TBST.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab137081)
All lanes:
Immunoprecipitation - Anti-BAF57/SMARCE1 antibody [EPR8849] - ChIP Grade (ab137081)

Predicted band size: 47 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.