abcam

ab249700

Anti-SNF2L antibody [EPR12191] - 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	EPR12191
Purification technique	Affinity purification
Specificity	Flow Cyt (Intra) and IP results based on Human reactivity.
Concentration	0.953 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Mouse

Dilution info	-
Notes	-

Expected

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

WB

Tested

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human

Dilution info	-
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information SMARCA1

Function

Isoform 1. ATPase that possesses intrinsic ATP-dependent chromatin-remodeling activity (PubMed:14609955, PubMed:15310751, PubMed:15640247, PubMed:28801535). ATPase activity is substrate-dependent, and is increased when nucleosomes are the substrate, but is also catalytically active when DNA alone is the substrate (PubMed:14609955, PubMed:15310751, PubMed:15640247). Catalytic subunit of ISWI chromatin-remodeling complexes, which form ordered nucleosome arrays on chromatin and facilitate access to DNA during DNA-templated processes such as DNA replication, transcription, and repair (PubMed:14609955, PubMed:15310751, PubMed:15640247, PubMed:28801535). Within the ISWI chromatin-remodeling complexes, slides edge- and center-positioned histone octamers away from their original location on the DNA template (PubMed:28801535). Catalytic activity and histone octamer sliding propensity is regulated and determined by components of the ISWI chromatin-remodeling complexes (PubMed:28801535). The BAZ1A-, BAZ1B-, BAZ2A- and BAZ2B-containing ISWI chromatin-remodeling complexes regulate the spacing of nucleosomes along the chromatin and have the ability to slide mononucleosomes to the center of a DNA template (PubMed:28801535). The CECR2- and RSF1-containing ISWI chromatin-remodeling complexes do not have the ability to slide mononucleosomes to the center of a DNA template (PubMed:28801535). Within the NURF-1 and CERF-1 ISWI chromatin remodeling complexes, nucleosomes are the preferred substrate for its ATPase activity (PubMed:14609955, PubMed:15640247). Within the NURF-1 ISWI chromatin-remodeling complex, binds to the promoters of En1 and En2 to positively regulate their expression and promote brain development (PubMed:14609955). May promote neurite outgrowth (PubMed:14609955). May be involved in the development of luteal cells (PubMed:16740656). Facilitates nucleosome assembly during DNA replication, ensuring replication fork progression and genomic stability by preventing replication stress and nascent DNA gaps (PubMed:39413208). Isoform 2. Catalytically inactive when either DNA or nucleosomes are the substrate and does not possess chromatin-remodeling activity (PubMed:15310751, PubMed:28801535). Acts as a negative regulator of chromatin remodelers by generating inactive complexes (PubMed:15310751).

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

ab249700 is the carrier-free version of ab172483.

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	SNF2L also known as SMARCA1 is a protein that functions as a chromatin remodeler. The molecular weight of SNF2L approximately 136 kDa. SNF2L is expressed widely with a higher presence in the brain and testis. The protein plays an active role in the regulation of gene expression by altering chromatin structure

	through ATP-dependent mechanisms. SNF2L belongs to the ISWI family of chromatin remodelers which facilitates the process by sliding or restructuring nucleosomes on DNA.
Biological function summary	SNF2L acts as part of the NURF (Nucleosome Remodeling Factor) complex. This complex is involved in modifying chromatin to make DNA accessible for transcription machinery. In addition to its role in transcription regulation SNF2L contributes to DNA replication and repair processes. By affecting chromatin architecture SNF2L influences the cell cycle and various developmental pathways. SNF2L's action is essential for maintaining proper gene expression patterns necessary for normal cellular function.
Pathways	SNF2L contributes to the Wnt signaling and neuronal differentiation pathways. In these contexts SNF2L works with proteins such as β-catenin in Wnt signaling where its chromatin remodeling abilities facilitate the transcription of Wnt target genes. Additionally SNF2L interacts with neural transcription factors during neuronal differentiation guiding the chromatin remodeling efforts necessary for neurogenesis. These pathways illustrate SNF2L's importance in regulating genes particularly those involved in cell fate decisions.
Associated diseases and disorders	SNF2L has been associated with neurodevelopmental disorders and cancer. Mutations or dysregulation of SNF2L can lead to intellectual disabilities and other brain-related anomalies highlighting its significance in cognitive function. In cancer anomalies in the expression or mutation of SNF2L can influence tumor progression potentially through pathways involving other tumor-related chromatin remodelers like BRCA1. As a result understanding SNF2L can offer insights into therapeutic strategies for these 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

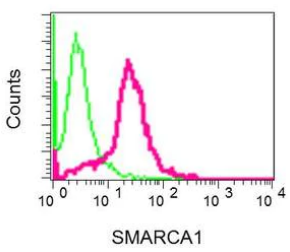
We do not recommend this combination. It is not covered by our product promise.

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.

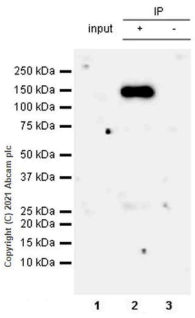
4 product images



Flow Cytometry (Intracellular) - Anti-SNF2L antibody [EPR12191] - BSA and Azide free (ab249700)

SNF2L Flow Cytometry (Intracellular) staining using rabbit Anti-SNF2L antibody

This data was developed using ab172483, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of permeabilized 293T cells labeling SNF2L with ab172483 at 1/10 dilution (red) or a Rabbit IgG (negative) (green).



Immunoprecipitation - Anti-SNF2L antibody [EPR12191] - BSA and Azide free (ab249700)

Blocking buffer and concentration: 5% NFDM/TBST
All lanes:
Immunoprecipitation - Anti-SNF2L antibody [EPR12191] (ab172483) at 1/1000 dilution

Lane 1:
RAW264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysate at 10 µg

Lane 2:
RAW264.7 whole cell lysate

Lane 3:
Rabbit monoclonal IgG (ab172730) instead of ab172483 in RAW264.7 whole cell lysate

Secondary

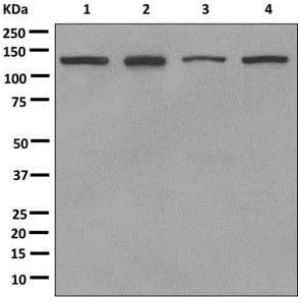
All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

Developed using the ECL technique.

Predicted band size: 123 kDa

Observed band size: 123 kDa

Exposure time: 3min



Western blot - Anti-SNF2L antibody [EPR12191] - BSA and Azide free (ab249700)

This data was developed using ab172483, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-SNF2L antibody [EPR12191] (ab172483) at 1/1000 dilution

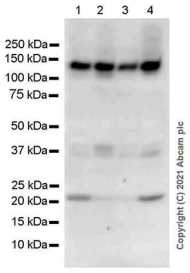
Lane 1:
HeLa cell lysate at 10 µg

Lane 2:
293T cell lysate at 10 µg

Lane 3:
SH-SY5Y cell lysate at 10 µg

Lane 4:
SK-OV-3 cell lysate at 10 µg

Predicted band size: 123 kDa



Western blot - Anti-SNF2L antibody [EPR12191] - BSA and Azide free (ab249700)

SNF2L Western blot staining using rabbit Anti-SNF2L antibody

Blocking buffer and concentration: 5% NFDM/TBST
All lanes:
Western blot - Anti-SNF2L antibody [EPR12191] (ab172483) at 1/1000 dilution

Lane 1:
C6 (rat glial tumor glial cell) whole cell lysate at 20 µg

Lane 2:
RAW264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysate at 20 µg

Lane 3:
PC-12 (rat adrenal gland pheochromocytoma) whole cell lysate at 20 µg

Lane 4:
NIH/3T3 (mouse embryonic fibroblast) whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Developed using the ECL technique.

Predicted band size: 123 kDa

Observed band size: 123 kDa

Exposure time: 81s

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