abcam

ab233644

Anti-SNF2L antibody [2H7B9]

Mouse Monoclonal SNF2L antibody. Suitable for Flow Cyt, WB, IHC-P and reacts with Mouse, Human samples. Cited in 1 publication. Immunogen corresponding to Recombinant Fragment Protein within Human SMARCA1 aa 900 to C-terminus.

Image updates are in progress. Products remain available and covered by the Abcam Product Promise. Learn more.

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Preservative: 0.05% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Human SMARCA1 aa 900 to C-terminus. The exact immunogen used to generate this antibody is proprietary information. Database link P28370
Clone number	2H7B9
Purification technique	Affinity purification Protein G

Reactivity data

Flow Cyt

Tested

Species	Mouse
Dilution info	1/200 - 1/400
Notes	-

Expected

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

WB

Tested

Species	Human
Dilution info	1/500 - 1/2000
Notes	-

Expected

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

IHC-P

Tested

Species	Human
Dilution info	1/200 - 1/1000
Notes	-

Expected

Species	Mouse
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 duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

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

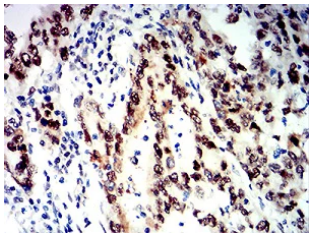
We do not recommend this combination. It is not covered by our product promise.

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.

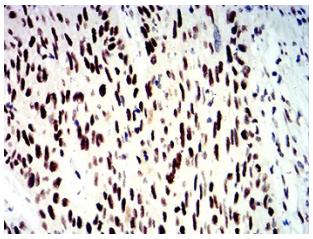
3 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SNF2L antibody [2H7B9] (ab233644)

SNF2L Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-SNF2L antibody

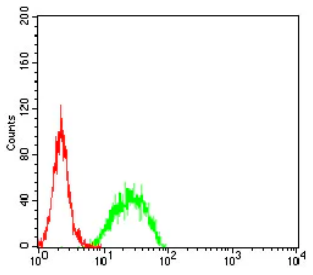
Paraffin-embedded human stomach cancer tissue stained for SNF2L using ab233644 at 1/200 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SNF2L antibody [2H7B9] (ab233644)

SNF2L Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-SNF2L antibody

Paraffin-embedded human esophageal cancer tissue stained for SNF2L using ab233644 at 1/200 dilution in immunohistochemical analysis.



Flow Cytometry - Anti-SNF2L antibody [2H7B9] (ab233644)

SNF2L Flow Cytometry staining using mouse Anti-SNF2L antibody

Flow cytometric analysis of NIH/3T3 (mouse embryo fibroblast cell line) cell line labeling SNF2L with ab233644 at 1/200 dilution (green) compared with a negative control (red).

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