

SNF2H Antibody

Rabbit mAb

Catalog # AP91990

Product Information

Application	WB, IF, ICC
Primary Accession	O60264
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	hISWI; hSNF2H; ISWI; MommeD4; SMARCA5; Snf2h; WCRF135;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	121905

Additional Information

Dilution	WB 1:500~1:2000 ICC/IF 1:50~1:200
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human SNF2H
Description	Helicase that possesses intrinsic ATP-dependent nucleosome-remodeling activity. Complexes containing SMARCA5 are capable of forming ordered nucleosome arrays on chromatin; this may require intact histone H4 tails.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

Name	SMARCA5 (HGNC:11101)
Function	ATPase that possesses intrinsic ATP-dependent nucleosome- remodeling activity (PubMed: 12972596 , PubMed: 28801535). 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; this may require intact histone H4 tails (PubMed: 10880450 , PubMed: 12198550 , PubMed: 12434153 , PubMed: 12972596 , PubMed: 23911928 , 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/ACF1-, BAZ1B/WSTF-, BAZ2A/TIP5- 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 in an ATP-dependent manner (PubMed: 14759371 ,

PubMed:[15543136](#), 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](#)). Binds to core histones together with RSF1, and is required for the assembly of regular nucleosome arrays by the RSF-5 ISWI chromatin-remodeling complex (PubMed:[12972596](#)). Involved in DNA replication and together with BAZ1A/ACF1 is required for replication of pericentric heterochromatin in S-phase (PubMed:[12434153](#)). Probably plays a role in repression of RNA polymerase I dependent transcription of the rDNA locus, through the recruitment of the SIN3/HDAC1 corepressor complex to the rDNA promoter (By similarity). Essential component of the WICH-5 ISWI chromatin-remodeling complex (also called the WICH complex), a chromatin-remodeling complex that mobilizes nucleosomes and reconfigures irregular chromatin to a regular nucleosomal array structure (PubMed:[11980720](#), PubMed:[15543136](#)). The WICH-5 ISWI chromatin-remodeling complex regulates the transcription of various genes, has a role in RNA polymerase I transcription (By similarity). Within the B- WICH complex has a role in RNA polymerase III transcription (PubMed:[16603771](#)). Mediates the histone H2AX phosphorylation at 'Tyr- 142', and is involved in the maintenance of chromatin structures during DNA replication processes (By similarity). Essential component of NoRC- 5 ISWI chromatin-remodeling complex, a complex that mediates silencing of a fraction of rDNA by recruiting histone-modifying enzymes and DNA methyltransferases, leading to heterochromatin formation and transcriptional silencing (By similarity).

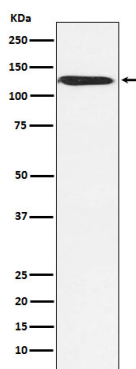
Cellular Location

Nucleus {ECO:0000255 | PROSITE-ProRule:PRU00624, ECO:0000269 | PubMed:12434153, ECO:0000269 | PubMed:12972596, ECO:0000269 | PubMed:15543136, ECO:0000269 | PubMed:33092197}. Chromosome Note=Localizes to mitotic chromosomes (PubMed:12972596). Co-localizes with RSF1 in the nucleus (PubMed:12972596). Co-localizes with PCNA at replication foci during S phase (PubMed:15543136). Co-localizes with BAZ1B/WSTF at replication foci during late-S phase (PubMed:15543136) Recruited to DNA damage sites following interaction with SIRT6 (PubMed:23911928).

Tissue Location

Ubiquitously expressed.

Images



Western blot analysis of SNF2H expression in MCF7 cell lysate.

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