

ISWI Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP14644a**Specification**

ISWI Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [O60264](#)**ISWI Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 8467**Other Names**

SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily A member 5, SWI/SNF-related matrix-associated actin-dependent regulator of chromatin A5, 364-, Sucrose nonfermenting protein 2 homolog, hSNF2H, SMARCA5, SNF2H, WCRF135

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ISWI Antibody (N-term) Blocking Peptide - Protein Information**Name** SMARCA5**Synonyms** SNF2H, WCRF135**Function**

Helicase 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:12434153, PubMed:28801535, PubMed:12198550, PubMed:12972596, PubMed:23911928). Within the ISWI chromatin-remodeling complexes, slides edge- and center-positioned histone octamers away from their original location on the DNA template (PubMed:<a

[28801535](http://www.uniprot.org/citations/28801535)). Catalytic activity and histone octamer sliding propensity is regulated and determined by components of the ISWI chromatin-remodeling complexes (PubMed:[28801535](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/14759371), PubMed:[15543136](http://www.uniprot.org/citations/15543136), PubMed:[28801535](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/12972596)). Involved in DNA replication and together with BAZ1A/ACF1 is required for replication of pericentric heterochromatin in S-phase (PubMed:[12434153](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/11980720), PubMed:[15543136](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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.

ISWI Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

ISWI Antibody (N-term) Blocking Peptide - Images

ISWI Antibody (N-term) Blocking Peptide - Background

The protein encoded by this gene is a member of the SWI/SNF family of proteins. Members of this family have helicase and ATPase activities and are thought to regulate transcription of certain genes by altering the chromatin structure around those genes. The protein encoded by this gene is a component of the chromatin remodeling and spacing factor RSF, a facilitator of the transcription of class II genes by RNA polymerase II. The encoded protein is similar in sequence to the Drosophila ISWI chromatin remodeling protein.

ISWI Antibody (N-term) Blocking Peptide - References

Goldman, J.A., et al. J. Biol. Chem. 285(7):4645-4651(2010) He, X., et al. Biochemistry 47(27):7025-7033(2008) Sheu, J.J., et al. Cancer Res. 68(11):4050-4057(2008) Olsen, J.V., et al. Cell 127(3):635-648(2006) Beausoleil, S.A., et al. Nat. Biotechnol. 24(10):1285-1292(2006)