

ATRX Antibody

Mouse Monoclonal Antibody (Mab) Catalog # AD80275

Specification

ATRX Antibody - Product info

P46100 Human Mouse Monoclonal IgG1 282587

IHC

ATRX Antibody - Additional info

Gene ID 546 Gene Name ATRX Other Names Transcriptional regulator ATRX, 3.6.4.12, ATP-dependent helicase ATRX, X-linked helicase II, X-linked nuclear protein, XNP, Znf-HX, ATRX, RAD54L, XH2

Dilution IHC~~Ready-to-use

Storage Maintain refrigerated at 2-8°C

Precautions

ATRX Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

ATRX Antibody - Protein Information

Name ATRX

Synonyms Function RAD54L, XH2

Involved in transcriptional regulation and chromatin remodeling. Facilitates DNA replication in multiple cellular environments and is required for efficient replication of a subset of genomic loci. Binds to DNA tandem repeat sequences in both telomeres and euchromatin and in vitro binds DNA quadruplex structures. May help stabilizing G-rich regions into regular chromatin structures by remodeling G4 DNA and incorporating H3.3- containing nucleosomes. Catalytic



component of the chromatin remodeling complex ATRX:DAXX which has **ATP-dependent DNA translocase activity** and catalyzes the replication-independent deposition of histone H3.3 in pericentric **DNA repeats outside S- phase and** telomeres, and the in vitro remodeling of H3.3- containing nucleosomes. Its heterochromatin targeting is proposed to involve a combinatorial readout of histone H3 modifications (specifically methylation states of H3K9 and H3K4) and association with CBX5. Involved in maintaining telomere structural integrity in embryonic stem cells which probably implies recruitment of CBX5 to telomers. Reports on the involvement in transcriptional regulation of telomeric repeat-containing RNA (TERRA) are conflicting; according to a report, it is not sufficient to decrease chromatin condensation at telomers nor to increase expression of telomeric RNA in fibroblasts (PubMed:24500201). May be involved in telomere maintenance via recombination in ALT (alternative lengthening of telomeres) cell lines. Acts as negative regulator of chromatin incorporation of transcriptionally repressive histone H2AFY, particularily at telomeres and the alpha-globin cluster in erythroleukemic cells. Participates in the allele-specific gene expression at the imprinted IGF2/H19 gene locus. On the maternal allele, required for the chromatin occupancy of SMC1 and CTCTF within the H19 imprinting control region (ICR) and involved in esatblishment of histone tails modifications in the ICR. May be involved in brain development and facial morphogenesis. Binds to zinc-finger coding genes with atypical chromatin signatures and regulates its H3K9me3 levels. Forms a complex with ZNF274. TRIM28 and SETDB1 to facilitate the deposition and maintenance of H3K9me3 at the 3' exons of zinc- finger genes (PubMed:27029610). Nucleus. Chromosome, telomere. Nucleus, PML body. Note=Associated with pericentromeric heterochromatin during interphase and mitosis, probably by interacting with CBX5/HP1 alpha. Colocalizes with histone H3.3, DAXX, HIRA and ASF1A at PML- nuclear bodies. Colocalizes with cohesin (SMC1 and SMC3) and MECP2 at the maternal H19 ICR (By similarity). Ubiquitous.

Cellular Location

Tissue Location

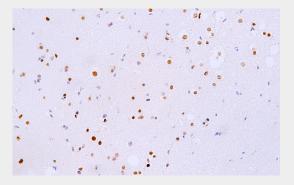


ATRX Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

ATRX Antibody - Images



Immunohistochemical analysis of paraffin-embedded glioblastoma tissue using AD80275 performed on the Abcarta® FAIP-30 Fully automated IHC platform.Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(Ready-to-use) for 15 min at room temperature. AmpSeeTM Detection Systems[Abcepta:AR005] was used as the secondary antibody.