

## ARG43623 anti-ATRX antibody

Package: 50 µg  
Store at: -20°C

### Summary

Product Description	Recombinant Rabbit Polyclonal antibody recognizes ATRX
Tested Reactivity	Hu, Ms, Rat
Tested Application	FACS, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	ATRX
Species	Human
Immunogen	Recombinant protein fragment within a.a. 1-300 of Human ATRX.
Conjugation	Un-conjugated
Alternate Names	XNP; SHS; MRXHF1; SFM1; ZNF-HX; RAD54L; JMS; EC 3.6.4.12; X-linked helicase II; XH2; ATR2; ATP-dependent helicase ATRX; Transcriptional regulator ATRX; MRX52; RAD54; X-linked nuclear protein; Znf-HX

### Application Instructions

Application table	Application	Dilution
	FACS	1 - 3 µg / 1X10 <sup>6</sup> cells
	IHC-P	1:250 - 1:1000
	WB	1:500 - 1:2000
Application Note	IHC-P: Antigen Retrieval: Heat mediated was performed using Citrate buffer (pH 6.0) for 20 min. Incubate the samples at 4°C for overnight. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	Human breast carcinoma tissue	
Observed Size	280-300 kDa	

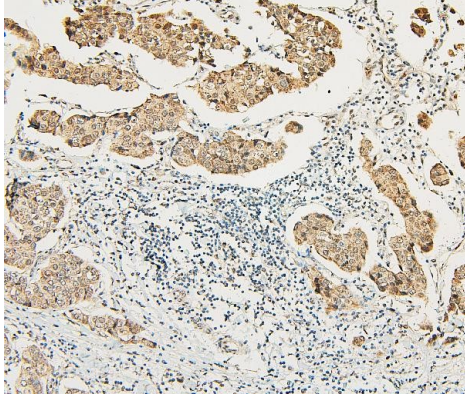
### Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.9% NaCl, 0.2% Na <sub>2</sub> HPO <sub>4</sub> and 4% Trehalose.
Stabilizer	4% Trehalose
Concentration	0.5 mg/ml

<b>Storage instruction</b>	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
<b>Note</b>	For laboratory research only, not for drug, diagnostic or other use.

## Bioinformation

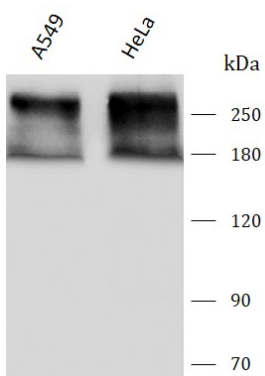
<b>Gene Symbol</b>	ATRX
<b>Gene Full Name</b>	alpha thalassemia/mental retardation syndrome X-linked
<b>Background</b>	The protein encoded by this gene contains an ATPase/helicase domain, and thus it belongs to the SWI/SNF family of chromatin remodeling proteins. This protein is found to undergo cell cycle-dependent phosphorylation, which regulates its nuclear matrix and chromatin association, and suggests its involvement in the gene regulation at interphase and chromosomal segregation in mitosis. Mutations in this gene are associated with an X-linked mental retardation (XLMR) syndrome most often accompanied by alpha-thalassemia (ATRX) syndrome. These mutations have been shown to cause diverse changes in the pattern of DNA methylation, which may provide a link between chromatin remodeling, DNA methylation, and gene expression in developmental processes. Multiple alternatively spliced transcript variants encoding distinct isoforms have been reported. [provided by RefSeq, Aug 2013]
<b>Function</b>	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 telomeres. Reports on the involvement in transcriptional regulation of telomeric repeat-containing RNA (TERRA) are conflicting; according (PubMed:24500201) is not sufficient to decrease chromatin condensation at telomeres nor to increase expression of telomeric RNA in fibroblasts. 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, particularly 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 establishment of histone tails modifications in the ICR. May be involved in brain development and facial morphogenesis. [UniProt]
<b>Calculated Mw</b>	283 kDa
<b>PTM</b>	Acetylation; Isopeptide bond; Methylation; Phosphoprotein; Ubl conjugation
<b>Cellular Localization</b>	Nucleus; Chromosome; telomere; PML body



ARG43623 anti-ATRX antibody IHC-P image

Immunohistochemistry: Human mammary cancer stained with ARG43623 anti-ATRX antibody at 1 µg/ml dilution.

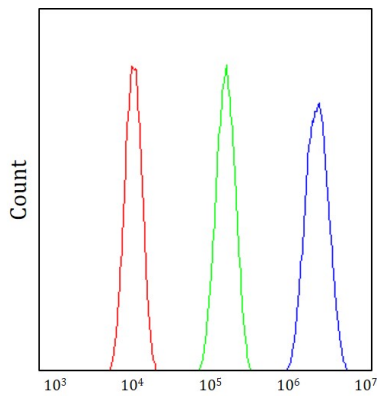
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ARG43623 anti-ATRX antibody WB image

Western blot: A549 and HeLa stained with ARG43623 anti-ATRX antibody at 0.5 µg/mL dilution.

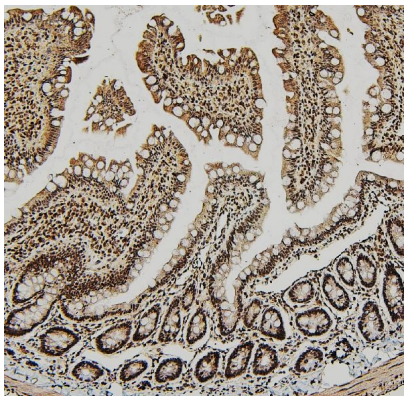
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ARG43623 anti-ATRX antibody FACS image

Flow Cytometry: A549 stained with ARG43623 anti-ATRX antibody at 1 µg / 10<sup>6</sup> cells dilution.

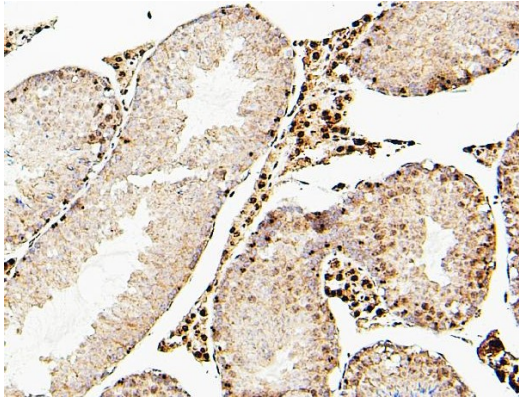
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ARG43623 anti-ATRX antibody IHC-P image

Immunohistochemistry: Rat small intestine stained with ARG43623 anti-ATRX antibody at 1 µg/ml dilution.

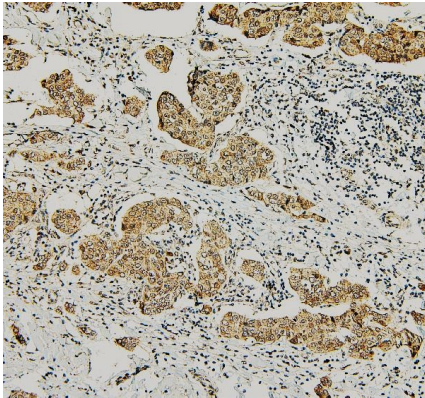
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ARG43623 anti-ATRX antibody IHC-P image

Immunohistochemistry: Mouse testis stained with ARG43623 anti-ATRX antibody at 1  $\mu\text{g}/\text{ml}$  dilution.

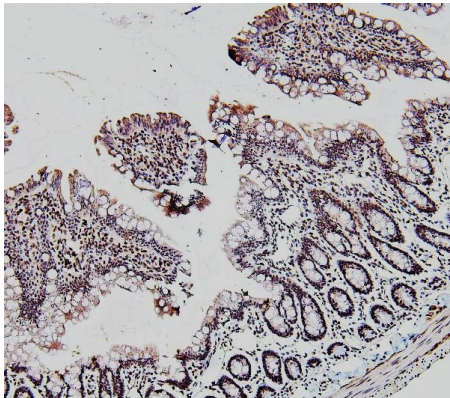
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ARG43623 anti-ATRX antibody IHC-P image

Immunohistochemistry: Human mammary cancer stained with ARG43623 anti-ATRX antibody at 1  $\mu\text{g}/\text{ml}$  dilution.

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ARG43623 anti-ATRX antibody IHC-P image

Immunohistochemistry: Rat small intestine stained with ARG43623 anti-ATRX antibody at 1  $\mu\text{g}/\text{ml}$  dilution.

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