Revision 1

Store at -20C

#14820

ATRX (D1N2E) Rabbit mAb

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, ChIP	H	Endogenous	280	Rabbit IgG	#P46100	546

Product Usage Information

For optimal ChIP results, use 10 µl of antibody and 10 µg of chromatin (approximately 4 x 10^6 cells) per IP. This antibody has been validated using SimpleChIP® Enzymatic Chromatin IP Kits.

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50
Chromatin IP	1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

ATRX (D1N2E) Rabbit mAb recognizes endogenous levels of total ATRX protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu1189 of human ATRX protein.

Background

α-thalassemia/mental retardation X-linked (ATRX) is a transcriptional regulator and helicase that belongs to the SNF2 family of chromatin remodeling proteins (1,2). Together with its binding partner death-associated protein 6 (Daxx), ATRX acts as histone chaperone to deposit histone variant H3.3 at repetitive DNA sequences such as telomeric, pericentric, and ribosomal gene repeats (3-6). ATRX is involved in many nuclear functions that ensure proper sister chromatid cohesion during mitosis and chromosome alignment during meiosis (7,8). The ATRX transcriptional regulator also plays a role in the maintenance of telomere integrity and the regulation of gene expression during mammalian development by influencing DNA methylation patterns at high DNA repeat sequences (9,10). Mutations in the corresponding *ATRX* gene results in ATR-X syndrome, an X-linked disorder characterized by intellectual disabilities, craniofacial abnormalities, and mild α-thalassemia (11,12). Research studies indicate that the loss of ATRX protein occurs in numerous cancers, including pancreatic neuroendocrine tumors (PanNETs) and pediatric glioblastoma, where telomere maintenance occurs independently of telomerase (13-16).

Background References

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Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **ChIP:** Chromatin IP

Cross-Reactivity Key

H: Human

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