

# ATRX (C-16): sc-10080

## — BACKGROUND

ATRX is a member of the SNF2 family of helicase/ATPases, which contribute to the remodeling of the nucleosome structure in an ATP-dependent manner, and facilitate the initiation of transcription and replication. Structurally, ATRX contains a PHD zinc finger motif. ATRX is regulated throughout the cell cycle where it is differentially distributed within the nucleus. During interphase, ATRX predominately associates with the nuclear matrix, while during mitosis, ATRX localizes with condensed chromatin. At the onset of M phase, phosphorylation rapidly induces this redistribution of ATRX to the short arms of human acrocentric chromosomes, where it then specifically complexes with heterochromatin protein 1  $\alpha$  to mediate chromosomal segregation. Mutations in the ATRX gene correlate with a high incidence of severe X-linked form of syndromal mental retardation associated with  $\alpha$  thalassaemia or ATRX syndrome.

## CHROMOSOMAL LOCATION

Genetic locus: ATRX (human) mapping to Xq21.1; Atrx (mouse) mapping to X D.

## SOURCE

ATRX (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of ATRX of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-10080 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ATRX (C-16) is recommended for detection of ATRX of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ATRX (C-16) is also recommended for detection of ATRX in additional species, including equine, canine and porcine.

Suitable for use as control antibody for ATRX siRNA (h): sc-37704, ATRX siRNA (m): sc-37705, ATRX shRNA Plasmid (h): sc-37704-SH, ATRX shRNA Plasmid (m): sc-37705-SH, ATRX shRNA (h) Lentiviral Particles: sc-37704-V and ATRX shRNA (m) Lentiviral Particles: sc-37705-V.

Molecular Weight of ATRX: 280 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, 3T3-L1 cell lysate: sc-2243 or HeLa whole cell lysate: sc-2200.

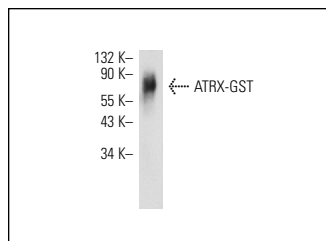
## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

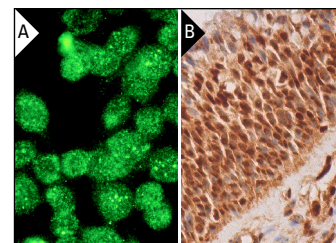
## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## DATA



ATRX (C-16): sc-10080. Western blot analysis of GST-tagged human recombinant ATRX.



ATRX (C-16): sc-10080. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human nasopharynx tissue showing nuclear and cytoplasmic staining of respiratory epithelial cells (B).

## SELECT PRODUCT CITATIONS

- Xue, Y., et al. 2003. The ATRX syndrome protein forms a chromatin-remodeling complex with Daxx and localizes in promyelocytic leukemia nuclear bodies. *Proc. Natl. Acad. Sci. USA* 100: 10635-10640.
- Lukashchuk, V., et al. 2008. Human cytomegalovirus protein pp71 displaces the chromatin-associated factor ATRX from nuclear domain 10 at early stages of infection. *J. Virol.* 82: 12543-12554.
- Reeves, M., et al. 2010. Human cytomegalovirus IE72 protein interacts with the transcriptional repressor hDaxx to regulate LUNA gene expression during lytic infection. *J. Virol.* 84: 7185-7194.
- Culver-Cochran, A.E. and Chadwick, B.P. 2013. Loss of WSTF results in spontaneous fluctuations of heterochromatin formation and resolution, combined with substantial changes to gene expression. *BMC Genomics* 14: 740.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **ATRX (D-5): sc-55584**, our highly recommended monoclonal alternatives to ATRX (C-16). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **ATRX (D-5): sc-55584**.