

RbAp48 (N-19): sc-8270

BACKGROUND

In the intact cell, DNA is closely associated with histones and other nuclear proteins to form chromatin. The remodeling of chromatin is believed to be a critical component of transcriptional regulation, and a major source of this remodeling is brought about by the acetylation of nucleosomal histones. Acetylation of lysine residues in the amino-terminal tail domain of histone results in an allosteric change in the nucleosomal conformation, and an increased accessibility of DNA to transcription factors. Conversely, the deacetylation of histones is associated with transcriptional silencing. Several mammalian proteins have been identified as nuclear histone acetylases, including GCN5, PCAF (for p300/CBP-associated factor), p300/CBP and the TFIID subunit TAF II p250. Mammalian HDAC1 (also designated HD1), HDAC2 (also designated RPD3) and HDAC3, all of which are related to the yeast transcriptional regulator Rpd3p, have been identified as histone deacetylases. The retinoblastoma binding proteins RbAp46 and RbAp48 have been identified as histone binding proteins, and they are components of the histone deacetylase complex.

CHROMOSOMAL LOCATION

Genetic locus: RBBP4 (human) mapping to 1p35.1; Rbbp4 (mouse) mapping to 4 D2.2.

SOURCE

RbAp48 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of RbAp48 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-8270 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

RbAp48 (N-19) is recommended for detection of RbAp48 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

RbAp48 (N-19) is also recommended for detection of RbAp48 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for RbAp48 siRNA (h): sc-37962, RbAp48 siRNA (m): sc-37963, RbAp48 shRNA Plasmid (h): sc-37962-SH, RbAp48 shRNA Plasmid (m): sc-37963-SH, RbAp48 shRNA (h) Lentiviral Particles: sc-37962-V and RbAp48 shRNA (m) Lentiviral Particles: sc-37963-V.

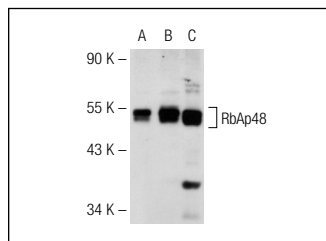
Molecular Weight of RbAp48: 48 kDa.

Positive Controls: Y79 nuclear extract: sc-2126, HeLa nuclear extract: sc-2120 or RbAp48 (h2): 293 Lysate: sc-175058.

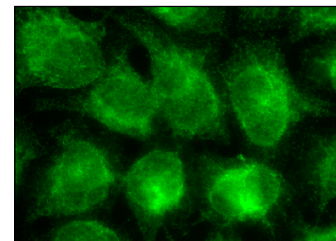
STORAGE

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

DATA



RbAp48 (N-19): sc-8270. Western blot analysis of RbAp48 expression in non-transfected: sc-110760 (A) and human RbAp48 transfected: sc-175058 (B) 293 whole cell lysates and HeLa nuclear extract (C).



RbAp48 (N-19): sc-8270. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Polanowska, J., et al. 2001. The periodic down regulation of Cyclin E gene expression from exit of mitosis to end of G₁ is controlled by a deacetylase- and E2F-associated bipartite repressor element. *Oncogene* 20: 4115-4127.
- Zhang, Y., et al. 2002. Silencing of transcription of the human luteinizing hormone receptor gene by histone deacetylase-mSin3A complex. *J. Biol. Chem.* 277: 33431-33438.
- Jiang, C.L., et al. 2004. MBD3L1 is a transcriptional repressor that interacts with methyl-CpG-binding protein 2 (MBD2) and components of the NuRD complex. *J. Biol. Chem.* 279: 52456-52464.
- Jin, S.G., et al. 2005. MBD3L2 interacts with MBD3 and components of the NuRD complex and can oppose MBD2-MeCP1-mediated methylation silencing. *J. Biol. Chem.* 280: 12700-12709.
- Phillips, R.J., et al. 2005. Regulation of expression of the chorionic gonadotropin/luteinizing hormone receptor gene in the human myometrium: involvement of specificity protein-1 (Sp1), Sp3, Sp4, Sp-like proteins, and histone deacetylases. *J. Clin. Endocrinol. Metab.* 90: 3479-3490.

RESEARCH USE

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



Try **RbAp46/p48 (G-8): sc-373873**, our highly recommended monoclonal alternative to RbAp48 (N-19).