SANTA CRUZ BIOTECHNOLOGY, INC.

RbAp46 (E-9): sc-377197

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 accessiblity 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.

REFERENCES

1. Braunstein, M., et al. 1993. Transcriptional silencing in yeast is associated with reduced nucleosome acetylation. Genes Dev. 7: 592-604.
2. Bauer, W.R., et al. 1994. Nucleosome structural changes due to acetylation. J. Mol. Biol. 236: 685-690.
3. Qian, Y.W., et al. 1995. Dual retinoblastoma-binding proteins with properties related to a negative regulator of ras in yeast. J. Biol. Chem. 270: 25507-25513.

CHROMOSOMAL LOCATION

Genetic locus: RBBP7 (human) mapping to Xp22.2; Rbbp7 (mouse) mapping to X F4.

SOURCE

RbAp46 (E-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2-29 at the N-terminus of RbAp46 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RbAp46 (E-9) is available conjugated to agarose (sc-377197 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-377197 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377197 PE), fluorescein (sc-377197 FITC), Alexa Fluor® 488 (sc-377197 AF488), Alexa Fluor® 546 (sc-377197 AF546), Alexa Fluor® 594 (sc-377197 AF594) or Alexa Fluor® 647 (sc-377197 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377197 AF680) or Alexa Fluor® 790 (sc-377197 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-377197 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

RbAp46 (E-9) is recommended for detection of RbAp46 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), 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).

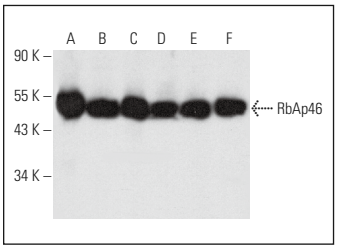
RbAp46 (E-9) is also recommended for detection of RbAp46 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for RbAp46 siRNA (h): sc-37960, RbAp46 siRNA (m): sc-37961, RbAp46 shRNA Plasmid (h): sc-37960-SH, RbAp46 shRNA Plasmid (m): sc-37961-SH, RbAp46 shRNA (h) Lentiviral Particles: sc-37960-V and RbAp46 shRNA (m) Lentiviral Particles: sc-37961-V.

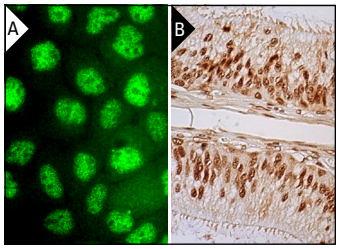
Molecular Weight of RbAp46: 46 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, Hep G2 cell lysate: sc-2227 or Neuro-2A whole cell lysate: sc-364185.

DATA



RbAp46 (E-9): sc-377197. Western blot analysis of RbAp46 expression in Jurkat (**A**), Hep G2 (**B**), F9 (**C**), Neuro-2A (**D**), NRK (**E**) and C6 (**F**) whole cell lysates.



RbAp46 (E-9): sc-377197. Immunofluorescence staining of formalin-fixed A-431 cells showing nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human epididymis tissue showing nuclear staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Yang, J., et al. 2021. TRPS1 drives heterochromatic origin refiring and cancer genome evolution. Cell Rep. 34: 108814.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.