

RbAp46/p48 (H-300): sc-33170

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: RBBP7 (human) mapping to Xp22.2, RBBP4 (human) mapping to 1p35.1; Rbbp7 (mouse) mapping to X F4, Rbbp4 (mouse) mapping to 4 D2.2.

SOURCE

RbAp46/p48 (H-300) is a rabbit polyclonal antibody raised against amino acids 126-425 mapping at the C-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.

STORAGE

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

APPLICATIONS

RbAp46/p48 (H-300) is recommended for detection of RbAp46 and 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).

RbAp46/p48 (H-300) is also recommended for detection of RbAp46 and RbAp48 in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight (predicted) of RbAp46/p48 isoforms 1/2: 46/48 kDa.

Molecular Weight (predicted) of RbAp46/p48 isoforms 3/4: 46/44 kDa.

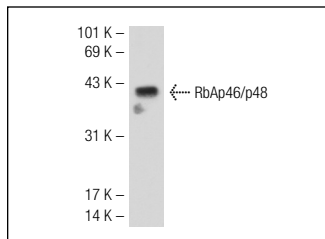
Molecular Weight (observed) of RbAp46/p48: 42 kDa.

Positive Controls: HeLa nuclear extract: sc-2120 or HL-60 nuclear extract: sc-2147.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



RbAp46/p48 (H-300): sc-33170. Western blot analysis of RbAp46/p48 expression in HL-60 nuclear extract.

SELECT PRODUCT CITATIONS

- Flowers, S., et al. 2011. Tissue-specific gene targeting by the multiprotein mammalian DREAM complex. *J. Biol. Chem.* 286: 27867-27871.
- Xu, F., et al. 2012. Essential role of ARID2 protein-containing SWI/SNF complex in tissue-specific gene expression. *J. Biol. Chem.* 287: 5033-5041.
- Flowers, S., et al. 2013. Cooperative activation of tissue-specific genes by pRB and E2F1. *Cancer Res.* 73: 2150-2158.

RESEARCH USE

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

PROTOCOLS

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

MONOS
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Try **RbAp46/p48 (G-8): sc-373873** or **RbAp46 (E-9): sc-377197**, our highly recommended monoclonal alternatives to RbAp46/p48 (H-300).