

SAP 18 (E-3): sc-514365

BACKGROUND

In the intact cell, DNA closely associates 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 to transcription factors by DNA. Conversely, the deacetylation of histones is associated with transcriptional silencing. Chromatin structure alteration may be brought about by the action of ATP-dependent multiprotein complexes. One such complex is the mSin3 corepressor complex, which contains mSin3, the histone deacetylases HDAC1 and HDAC2, the associated proteins SAP 30 and SAP 18, and the putative helicase Mi2.

REFERENCES

1. Lee, D.Y., et al. 1993. A positive role for histone acetylation in transcription factor access to nucleosomal DNA. *Cell* 72: 73-82.
2. Braunstein, M., et al. 1993. Transcriptional silencing in yeast is associated with reduced nucleosome acetylation. *Genes Dev.* 7: 592-604.
3. Bauer, W.R., et al. 1994. Nucleosome structural changes due to acetylation. *J. Mol. Biol.* 236: 685-690.
4. Seelig, H.P., et al. 1995. The major dermatomyositis-specific Mi-2 autoantigen is a presumed helicase involved in transcriptional activation. *Arthritis Rheum.* 38: 1389-1399.
5. Kingston, R.E., et al. 1996. Repression and activation by multiprotein complexes that alter chromatin structure. *Genes Dev.* 10: 905-920.
6. Zhang, Y., et al. 1997. Histone deacetylases and SAP 18, a novel polypeptide, are components of a human Sin3 complex. *Cell* 89: 357-364.
7. Zhang, Y., et al. 1998. SAP 30, a novel protein conserved between human and yeast, is a component of a histone deacetylase complex. *Mol. Cell* 1: 1021-1031.

CHROMOSOMAL LOCATION

Genetic locus: SAP18 (human) mapping to 13q12.11.

SOURCE

SAP 18 (E-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 129-153 at the C-terminus of SAP18 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-514365 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-514365 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

SAP 18 (E-3) is recommended for detection of SAP 18 of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SAP 18 siRNA (h): sc-36454, SAP 18 shRNA Plasmid (h): sc-36454-SH and SAP 18 shRNA (h) Lentiviral Particles: sc-36454-V.

SAP 18 (E-3) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

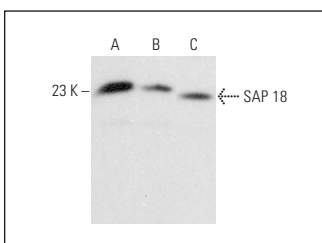
Molecular Weight of SAP 18: 18 kDa.

Positive Controls: MEG-01 cell lysate: sc-2283, K-562 nuclear extract: sc-2130 or IMR-32 nuclear extract: sc-2148.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



SAP 18 (E-3): sc-514365. Western blot analysis of SAP 18 expression in K-562 (A) and IMR-32 (B) nuclear extracts and MEG-01 whole cell lysate (C).

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.