SANTA CRUZ BIOTECHNOLOGY, INC.

SAP 30 (CA14): sc-130425

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 accessiblity 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 Mi2 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.
8. Zhang, Y., et al. 1998. The dermatomyositis-specific autoantigen Mi2 is a component of a complex containing histone deacetylase and nucleosome remodeling activities. Cell 95: 279-289.

CHROMOSOMAL LOCATION

Genetic locus: SAP30 (human) mapping to 4q34.1.

SOURCE

SAP 30 (CA14) is a mouse monoclonal antibody raised against recombinant SAP 30 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

SAP 30 (CA14) is recommended for detection of SAP 30 of human origin by 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).

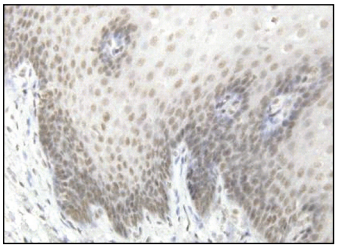
Suitable for use as control antibody for SAP 30 siRNA (h): sc-44086, SAP 30 shRNA Plasmid (h): sc-44086-SH and SAP 30 shRNA (h) Lentiviral Particles: sc-44086-V.

Molecular Weight of SAP 30: 30 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) 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 30 (CA14): sc-130425. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human esophagus tissue showing nuclear localization.

STORAGE

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

PROTOCOLS

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