SANTA CRUZ BIOTECHNOLOGY, INC.

SAP 18 (C-20): sc-8473

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 de-acetylation 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.

CHROMOSOMAL LOCATION

Genetic locus: SAP18 (human) mapping to 13q12.11; Sap18 (mouse) mapping to 14 C3, Gm10094 (mouse) mapping to 8 D1.

SOURCE

SAP 18 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of SAP18 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-8473 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

SAP 18 (C-20) is recommended for detection of SAP 18 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), 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); also recommended for detection of ENSMUSG00000061104 of mouse origin.

SAP 18 (C-20) is also recommended for detection of SAP 18 in additional species, including equine, canine, bovine, porcine and avian.

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

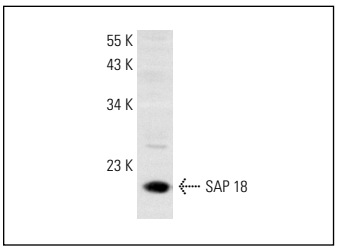
Molecular Weight of SAP 18: 18 kDa.

Positive Controls: K-562 nuclear extract: sc-2130, HeLa nuclear extract: sc-2120 or IMR-32 nuclear extract: sc-2148.

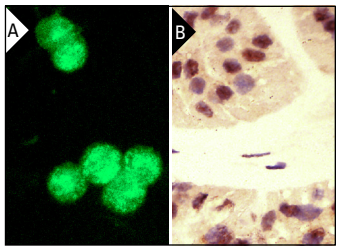
RESEARCH USE

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

DATA



SAP 18 (C-20): sc-8473. Western blot analysis of SAP 18 expression in K-562 nuclear extract.



SAP 18 (C-20): sc-8473. Immunofluorescence staining of methanol-fixed K-562 cells (**A**) and immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tumor (**B**) showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Chadwick, B.P., et al. 2003. Chromatin of the Barr body: histone and non-histone proteins associated with or excluded from the inactive X chromosome. Hum. Mol. Genet. 12: 2167-2178.
2. Meehan, W.J., et al. 2004. Breast cancer metastasis suppressor 1 (BRMS1) forms complexes with retinoblastoma-binding protein 1 (RBP1) and the mSin3 histone deacetylase complex and represses transcription. J. Biol. Chem. 279: 1562-1569.
3. Culver-Cochran, A.E. and Chadwick, B.P. 2013. Loss of WSTF results in spontaneous fluctuations of heterochromatin formation and resolution, combined with substantial changes to gene expression. BMC Genomics 14: 740.

PROTOCOLS

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