



Hat1 (yN-20): sc-8753

BACKGROUND

Yeast histone acetyltransferase contains Hat1, Hat2 and Hif1 proteins. Hat1 is a catalytic subunit of the Hat1p-Hat2p histone acetyltransferase complex that uses the cofactor acetyl coenzyme A, to acetylate free nuclear and cytoplasmic histone H4. Hat1 is involved in telomeric silencing and DNA double-strand break repair. Chromatin remodeling, thought to be a critical component of transcriptional regulation, is effected by the acetylation of nucleosomal histones. Acetylation 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.

REFERENCES

- Marcus, G.A., Silverman, N., Berger, S.L., Horiuchi, J., and Guarente, L. 1994. Functional similarity and physical association between Gcn5 and Ada2: putative transcriptional adaptors. *EMBO J.* 13: 4807-4815.
- Carmen, A.C., Rundlett, S.E., and Grunstein, M. 1996. Hda1 and Hda3 are components of a yeast histone deacetylase (Hda) complex. *J. Biol. Chem.* 271: 15837-15844.
- Parthun, M.R., Widom, J., and Gottschling, D.E. 1996. The major cytoplasmic histone acetyltransferase in yeast: links to chromatin replication and histone metabolism. *Cell* 87: 85-94.
- Kasten, M.M., Dorland, S., and Stillman, D.J. 1997. A large protein complex containing the yeast Sin3p and Rpd3p transcriptional regulators. *Mol. Cell. Biol.* 17: 4852-4858.
- Kadosh, D. and Struhl, K. 1997. Repression by Ume6 involves recruitment of a complex containing Sin3 corepressor and Rpd3 histone deacetylase to target promoters. *Cell* 89: 365-371.
- Pennisi, E. 1997. Opening the way to gene activity. *Science* 275: 155-156
- Zhang, Y., Sun, Z.W., Iratni, R., Erdjument-Bromage, H., Tempst, P., Hampsey, M., and Reinberg, D. 1998. Sap30, a novel protein conserved between human and yeast, is a component of a histone deacetylase complex. *Mol. Cell* 1: 1021-1031.

SOURCE

Hat1 (yN-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Hat1 of *Saccharomyces cerevisiae* 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-8753 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

Hat1 (yN-20) is recommended for detection of Hat1 of *Saccharomyces cerevisiae* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of Hat1: 42 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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.

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.