SouthernBiotech

Mouse Anti-Acetyl-Histone H4 (Lys16)

Cat. No.	Form	Quantity
13800-01	Purified (UNLB) Antibody	0.1 mg

DESCRIPTION

Clone	SB160c
Isotype	Mouse $IgG_{2b}\kappa$
Immunogen	Synthetic Peptide
Specificity	Histone H4 acetylated at Lysine 16, Mr 11 kDa
Species Reactivity	Human; other species not tested

Nucleosomes are the fundamental repeating subunit of chromatin and are the basic units of DNA packaging in eukaryotes. Nucleosomes consist of 147 base pairs of DNA wrapped around a histone octamer composed of pairs of each of the four core histones (H2A, H2B, H3, and H4).[1] Histones consist of a globular domain and a more flexible amino terminus (histone "tail") which may undergo various post-translational modifications, including acetylation, phosphorylation, and methylation.[2-5] These modifications have a direct effect on chromatin structure and chromatin protein interactions, and are involved in DNA repair, chromosome condensation, and gene regulation.[6]

RESEARCH APPLICATIONS

- Enzyme-Linked-Immunosorbent-Assay (ELISA)
- Immunoblotting
- Immunoprecipitation
- Immunohistochemistry (Paraffin Sections)
- Immunocytochemistry

CHARACTERIZATION

To ensure lot-to-lot consistency, each batch of product is tested by immunoblotting and/or ELISA to conform to characteristics of a standard reference reagent. Representative data are included in this product insert.

WORKING DILUTIONS

Immunoblotting	Purified (UNLB) antibody	≤ 1 µg/mL
ELISA	Purified (UNLB) antibody	≤ 1 µg/mL
Immunohistochemistry & Immunocytochemistry	Purified (UNLB) antibody	≤ 2 µg/mL
Other Applications	Since applications vary, you should determine the optimum working dilution of the product that is appropriate for your specific need.	

For Research Use Only. Not for Diagnostic or Therapeutic Use.

Corporate Offices: 160 Oxmoor Blvd • Birmingham, AL 35209 • USA **Mailing Address:** P.O. Box 26221 • Birmingham, AL 35260 • USA
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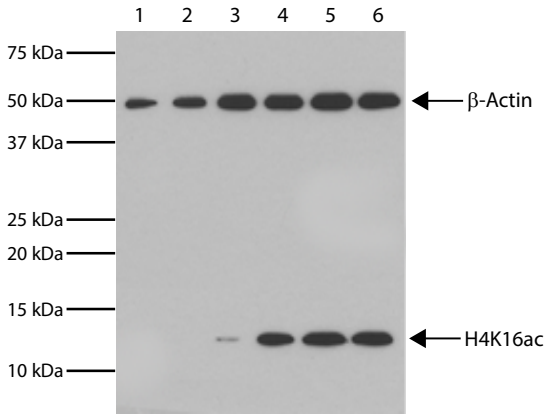
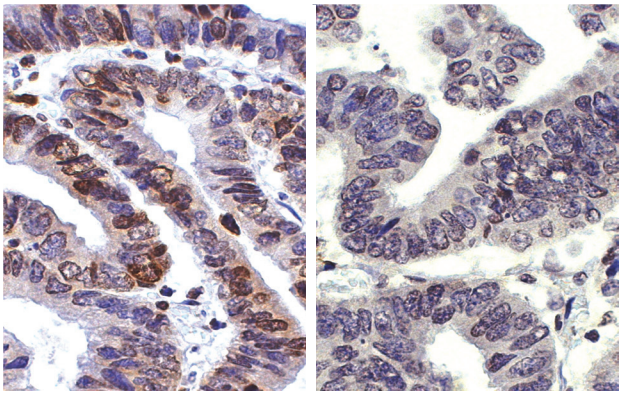
IMMUNOBLOTTING



Lane 1 – 60 μM
Lane 2 – 30 μM
Lane 3 – 15 μM
Lane 4 – 7.5 μM
Lane 5 – 3.7 μM
Lane 6 – Untreated

H4K16ac expression on Jurkat cell lysate (20 μg/lane) treated with the acetyltransferase inhibitor, curcumin. Goat Anti-Mouse IgG, Human ads-HRP (SB Cat. No. 1030-05) was used as a secondary at 1:6K.

IMMUNOHISTOCHEMISTRY



Left - Without immunizing peptide block
Right - Antibody blocked with immunizing peptide

Immunohistochemical staining of paraffin embedded human gastric cancer tissue with Mouse Anti-H4K16ac-UNLB followed by Goat Anti-Mouse IgG(H+L), Human ads-HRP (SB Cat. No.1031-05). Sections were developed with DAB and counterstained with hematoxylin.

HANDLING AND STORAGE

- The purified (UNLB) antibody is supplied as 0.1 mg of purified immunoglobulin in 0.2 mL of borate buffered saline, pH 8.2, containing 30% glycerol and 0.01% BSA. Store at -20°C.

REFERENCES

1. Workman JL, Kingston RE. Alteration of nucleosome structure as a mechanism of transcriptional regulation. Annu Rev Biochem. 1998;67:545-79.
2. Cheung P, Allis CD, Sassone-Corsi P. Signaling to chromatin through histone modifications. Cell. 2000;103:263-71.
3. Strahl BD, Allis CD. The language of covalent histone modifications. Nature. 2000;403:41-5.
4. Hansen JC, Tse C, Wolffe AP. Structure and function of the core histone N-termini: More than meets the eye. Biochemistry. 1998;37:17637-41.
5. Bernstein BE, Schreiber SL. Global approaches to chromatin. Chem Biol. 2002;9:1167-73.
6. Jaskelioff M, Peterson CL. Chromatin and transcription: histones continue to make their marks. Nat Cell Biol. 2003;5:395-9.

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