**BACKGROUND**

Lysine acetylation occurs in core histones, transcription factors and other proteins. This reversible modification is under the influence of signal-dependent association of substrates with acetyltransferases and deacetylases. Lysine acetylation generates specific docking sites for bromodomain proteins. Bromodomains of GCN5, PCAF, TAF1 and CBP are able to recognize acetyl-lysine residues in histones, HIV Tat, p53, c-Myb or MyoD. Trichostatin A (TSA), a histone deacetylase inhibitor, strongly increases acetylation of the N-terminal tails of Histone H3. Ethanol increases acetylation of Histone H3 at Lys 9 in a dose-dependent manner.

**REFERENCES**


**SOURCE**

Ac-lysine (AKL5C1) is a mouse monoclonal antibody raised against chemically acetylated keyhole limpet hemocyanin.

**PRODUCT**

Each vial contains 200 µg IgG1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Ac-lysine (AKL5C1) is available conjugated to agarose (sc-32268 AC), 500 µg/0.25 ml agarose in 1 ml, for IP.

**APPLICATIONS**

Ac-lysine (AKL5C1) is recommended for detection of proteins containing N-α-acetylated lysine residues by Western Blotting (starting dilution 1:100, dilution range), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500); non cross-reactive with N-ε-acetylated lysine.

Santa Cruz Biotechnology offers several chemical inducers of acetylation, including: Apicidin (sc-202061), Panobinostat (sc-208148), Suberoylanilide Hydroxamic Acid (sc-220139), Oxamflatin (sc-205960), Msi-275 (sc-279455), M 344 (sc-203124), Sirtuatin (sc-202807), Trapoxin A (sc-253730) and Trichostatin A (sc-3511).

Positive Controls: Trichostatin A treated NIH/3T3 whole cell lysate.

**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.

**DATA**

Ac-lysine (AKL5C1): sc-32268. Western blot analysis of Ac-lysine acetylation in untreated (A) and Trichostatin A (sc-3511) treated (B) NIH/3T3 whole cell lysates. Note up-regulation of Ac-lysine acetylation in lane B.

Ac-lysine (AKL5C1): sc-32268. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

**SELECT PRODUCT CITATIONS**


**PROTOCOLS**

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