

NAT-10 (m): 293T Lysate: sc-127198

BACKGROUND

NAT-10 (N-acetyltransferase 10) is a nuclear protein that belongs to the UPF0202 family. It has a single N-acetyltransferase domain that likely functions as a histone acetyltransferase. NAT-10 functions primarily to regulate the activity of telomerase. It is upregulated in response to DNA damage and is likely to take part in genotoxic resistance and DNA repair. NAT-10 has a high binding potential for the promoter region of TERT which stimulates the production of telomerase. These varieties of function imply that human telomerase complexes have multiple functions rather than specific duties.

REFERENCES

1. Lv, J., Liu, H., Wang, Q., Tang, Z., Hou, L. and Zhang, B. 2003. Molecular cloning of a novel human gene encoding histone acetyltransferase-like protein involved in transcriptional activation of hTERT. *Biochem. Biophys. Res. Commun.* 311: 506-513.
2. Liu, H.J., Ling, Y., Hou, L. and Zhang, B. 2005. An analysis of induced expression and function of telomerase-regulation associated hALP gene on genotoxic agents. *Zhonghua Bing Li Xue Za Zhi* 34: 732-736.
3. Fu, D. and Collins, K. 2007. Purification of human telomerase complexes identifies factors involved in telomerase biogenesis and telomere length regulation. *Mol. Cell* 28: 773-785.
4. Chi, Y.H., Haller, K. and Jeang, K.T. 2007. Histone acetyltransferase hALP and nuclear membrane protein hsSUN1 function in de-condensation of mitotic chromosomes. *J. Biol. Chem.* 282: 27447-27458.
5. Liu, H., Ling, Y., Gong, Y., Sun, Y., Hou, L. and Zhang, B. 2007. DNA damage induces N-acetyltransferase NAT10 gene expression through transcriptional activation. *Mol. Cell. Biochem.* 300: 249-258.

CHROMOSOMAL LOCATION

Genetic locus: Nat10 (mouse) mapping to 2 E2.

PRODUCT

NAT-10 (m): 293T Lysate represents a lysate of mouse NAT-10 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

NAT-10 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive NAT-10 antibodies. Recommended use: 10-20 µl per lane.

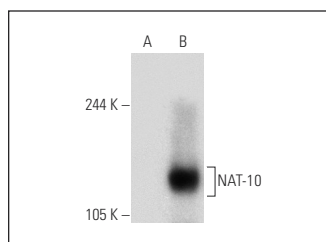
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

NAT-10 (D-5): sc-271142 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse NAT-10 expression in NAT-10 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

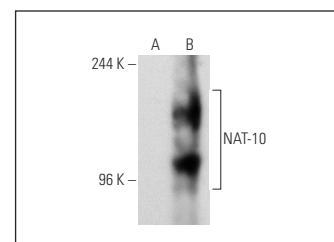
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



NAT-10 (D-5): sc-271142. Western blot analysis of NAT-10 expression in non-transfected: sc-117752 (A) and mouse NAT-10 transfected: sc-127198 (B) 293T whole cell lysates.



NAT-10 (C-10): sc-271141. Western blot analysis of NAT-10 expression in non-transfected: sc-117752 (A) and mouse NAT-10 transfected: sc-127198 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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