

TIP60 (h2): 293T Lysate: sc-117021

BACKGROUND

MOZ (monocytic leukemia zinc finger protein) is a chromatin-associated histone acetyltransferase (HAT) that regulates chromatin remodeling and transcription. The MOZ gene was initially isolated as a consequence of two variant translocations that were identified in a distinct subtype of acute myeloid leukemias and resulted in the formation of MOZ fusion proteins. These fusions involve the HAT domain of MOZ with the activation domain of either transcriptional co-activator protein TIF2/GRIP1 or CBP, and lead to enhanced transcriptional activation by a mechanism involving aberrant histone acetylation. Additional MOZ-related proteins, including MORF (MOZ-related factor) and TIP60 (TAT interActing proteins 60), share significant similarities with MOZ, including the putative HAT domain. MORF also contains a strong transcriptional repression domain at its N-terminus and a highly potent activation domain at the C-terminus, suggesting that MORF has both HAT activity and contributes to the regulation of transcriptional activation. TIP60 was originally identified as a co-activator for the HIV Tat protein and also functions as a nuclear hormone receptor co-activator that enhances ligand-dependent steroid receptor-mediated transactivation involving the androgen, estrogen and progesterone receptors.

REFERENCES

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2. Aguiar, R.C., et al. 1997. Abnormalities of chromosome band 8p11 in leukemia: two clinical syndromes can be distinguished on the basis of MOZ involvement. *Blood* 90: 3130-3135.
3. Hilfiker, A., et al. 1997. MOF, a putative acetyl transferase gene related to the Tip60 and MOZ human genes and to the SAS genes of yeast, is required for dosage compensation in *Drosophila*. *EMBO J.* 16: 2054-2060.
4. Yamamoto, T. and Horikoshi, M. 1997. Novel substrate specificity of the histone acetyltransferase activity of HIV-1 Tat interactive protein TIP60. *J. Biol. Chem.* 272: 30595-30598.
5. Kuo, M.H. and Allis, C.D. 1998. Roles of histone acetyltransferases and deacetylases in gene regulation. *Bioessays* 20: 615-626.
6. Carapeti, M., et al. 1998. A novel fusion between MOZ and the nuclear receptor coactivator TIF2 in acute myeloid leukemia. *Blood* 91: 3127-3133.
7. Champagne, N., et al. 1999. Identification of a human histone acetyltransferase related to monocytic leukemia zinc finger protein. *J. Biol. Chem.* 274: 28528-28536.
8. Brady, M.E., et al. 1999. Tip60 is a nuclear hormone receptor coactivator. *J. Biol. Chem.* 274: 17599-17604.

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.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: KAT5 (human) mapping to 11q13.1.

PRODUCT

TIP60 (h2): 293T Lysate represents a lysate of human TIP60 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

TIP60 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive TIP60 antibodies. Recommended use: 10-20 µl per lane.

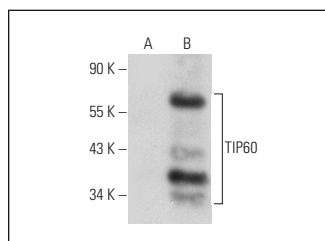
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

TIP60 (C-7): sc-166323 is recommended as a positive control antibody for Western Blot analysis of enhanced human TIP60 expression in TIP60 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



TIP60 (C-7): sc-166323. Western blot analysis of TIP60 expression in non-transfected: sc-117752 (A) and human TIP60 transfected: sc-117021 (B) 293T whole cell lysates.

RESEARCH USE

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