

# TIP60 (3F9G7): sc-81164

## 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 co-activator TIF2 in acute myeloid leukemia. *Blood* 91: 3127-3133.
7. Brady, M.E., et al. 1999. TIP60 is a nuclear hormone receptor co-activator. *J. Biol. Chem.* 274: 17599-17604.
8. Champagne, N., et al. 1999. Identification of a human histone acetyltransferase related to monocytic leukemia zinc-finger protein. *J. Biol. Chem.* 274: 28528-28536.

## CHROMOSOMAL LOCATION

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

## SOURCE

TIP60 (3F9G7) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 18-208 of TIP60 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

TIP60 (3F9G7) is recommended for detection of TIP60 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for TIP60 siRNA (h): sc-37966, TIP60 shRNA Plasmid (h): sc-37966-SH and TIP60 shRNA (h) Lentiviral Particles: sc-37966-V.

Molecular Weight of TIP60: 54 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132, CCRF-CEM nuclear extract: sc-2146 or IMR-32 nuclear extract: sc-2148.

## 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. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.



See **TIP60 (C-7): sc-166323** for TIP60 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.