SANTA CRUZ BIOTECHNOLOGY, INC.

TIP60 (C-7): sc-166323

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 putuative 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 coactivator for the HIV TAT protein and also functions as a nuclear hormone receptor coactivator that enhances ligand dependent steroid receptor-mediated transactivation involving the androgen, estrogen and progesterone receptors.

CHROMOSOMAL LOCATION

Genetic locus: KAT5 (human) mapping to 11q13.1; Kat5 (mouse) mapping to 19 A.

SOURCE

TIP60 (C-7) is a mouse monoclonal antibody raised against amino acids 421-513 of TIP60 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TIP60 (C-7) is available conjugated to agarose (sc-166323 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166323 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166323 PE), fluorescein (sc-166323 FITC), Alexa Fluor® 488 (sc-166323 AF488), Alexa Fluor® 546 (sc-166323 AF546), Alexa Fluor® 594 (sc-166323 AF594) or Alexa Fluor® 647 (sc-166323 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166323 AF680) or Alexa Fluor® 790 (sc-166323 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

TIP60 (C-7) is recommended for detection of TIP60 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

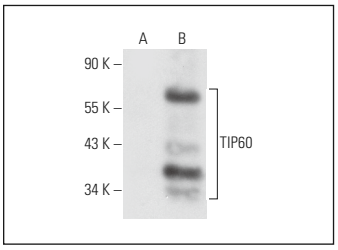
TIP60 (C-7) is also recommended for detection of TIP60 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TIP60 siRNA (h): sc-37966, TIP60 siRNA (m): sc-37967, TIP60 shRNA Plasmid (h): sc-37966-SH, TIP60 shRNA Plasmid (m): sc-37967-SH, TIP60 shRNA (h) Lentiviral Particles: sc-37966-V and TIP60 shRNA (m) Lentiviral Particles: sc-37967-V.

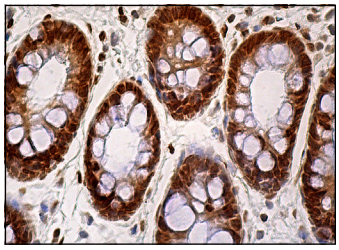
Molecular Weight of TIP60: 54 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132, CCRF-CEM nuclear extract: sc-2146 or TIP60 (h2): 293T Lysate: sc-117021.

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.



TIP60 (C-7): sc-166323. Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing nuclear and cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Dittmann, K., et al. 2013. EGFR cooperates with glucose transporter SGLT1 to enable chromatin remodeling in response to ionizing radiation. Radiother. Oncol. 107: 247-251.
2. Song, H., et al. 2020. Isoform-specific lysine methylation of RORα2 by SETD7 is required for association of the TIP60 coactivator complex in prostate cancer progression. Int. J. Mol. Sci. 21: 1622.
3. Chesnokova, V., et al. 2021. Local non-pituitary growth hormone is induced with aging and facilitates epithelial damage. Cell Rep. 37: 110068.
4. Wichmann, J., et al. 2022. Loss of TIP60 (KAT5) abolishes H2AZ lysine 7 acetylation and causes p53, INK4A, and ARF-independent cell cycle arrest. Cell Death Dis. 13: 627.
5. Solier, S., et al. 2023. A druggable copper-signalling pathway that drives inflammation. Nature 617: 386-394.

RESEARCH USE

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