SANTA CRUZ BIOTECHNOLOGY, INC.

TudorSN (C-9): sc-271590

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

TudorSN functions in the Pim-1 regulation of Myb activity and acts as a transcriptional activatior of EBNA-2. TudorSN also interacts with EAV, NSP1, GTF2E1 and GTF2E2, and forms a ternary complex with Stat6 and POLR2A. The staphylococcal nuclease-like (SN)-domains directly interact with amino acids 1099-1758 of CBP. TudorSN plays an important role in the assembly of Stat6 transcriptome and stimulates IL-4-dependent transcription by mediating interaction between Stat6 and CBP.

REFERENCES

1. Leverson, J.D., et al. 1998. Pim-1 kinase and p100 cooperate to enhance c-Myb activity. Mol. Cell 2: 417-425.
2. Tijms, M.A., et al. 2003. Equine arteritis virus non-structural protein 1, an essential factor for viral subgenomic mRNA synthesis, interacts with the cellular transcription co-factor p100. J. Gen. Virol. 84: 2317-2322.

CHROMOSOMAL LOCATION

Genetic locus: SND1 (human) mapping to 7q32.1; Snd1 (mouse) mapping to 6 A3.3.

SOURCE

TudorSN (C-9) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of TudorSN 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-271590 X, 200 µg/0.1 ml.

APPLICATIONS

TudorSN (C-9) is recommended for detection of TudorSN 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).

Suitable for use as control antibody for TudorSN siRNA (h): sc-45514, TudorSN siRNA (m): sc-45515, TudorSN shRNA Plasmid (h): sc-45514-SH, TudorSN shRNA Plasmid (m): sc-45515-SH, TudorSN shRNA (h) Lentiviral Particles: sc-45514-V and TudorSN shRNA (m) Lentiviral Particles: sc-45515-V.

TudorSN (C-9) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

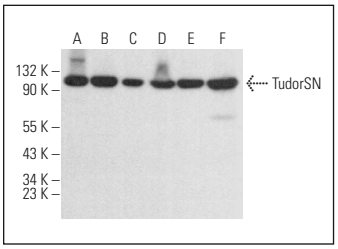
Molecular Weight of TudorSN: 100 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, 3T3-L1 cell lysate: sc-2243 or c4 whole cell lysate: sc-364186.

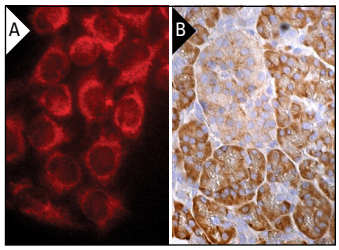
STORAGE

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

DATA



TudorSN (C-9): sc-271590. Western blot analysis of TudorSN expression in MOLT-4 nuclear extract (**A**) and MCF7 (**B**), 3T3-L1 (**C**), c4 (**D**), Hep G2 (**E**) and PC-12 (**F**) whole cell lysates.



TudorSN (C-9): sc-271590. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Musiyenko, A., et al. 2012. PRMT1 methylates the single Argonaute of *Toxoplasma gondii* and is important for the recruitment of Tudor nuclease for target RNA cleavage by antisense guide RNA. Cell. Microbiol. 14: 882-901.
2. Su, C., et al. 2017. Phosphorylation of TudorSN, a novel substrate of JNK, is involved in the efficient recruitment of TudorSN into stress granules. Biochim. Biophys. Acta Mol. Cell Res. 1864: 562-571.
3. Zhou, M., et al. 2019. SND1 promotes the proliferation of osteosarcoma cells by upregulating COX-2/PGE2 expression via activation of NFκB. Oncol. Rep. 41: 579-589.
4. Qian, W., et al. 2020. Linc00668 promotes invasion and stem cell-like properties of breast cancer cells by interaction with SND1. Front. Oncol. 10: 88.
5. Li, P., et al. 2021. Disruption of SND1-MTDH interaction by a high affinity peptide results in SND1 degradation and cytotoxicity to breast cancer cells *in vitro* and *in vivo*. Mol. Cancer Ther. 20: 76-84.
6. Diao, C., et al. 2021. SPT6 recruits SND1 to co-activate human telomerase reverse transcriptase to promote colon cancer progression. Mol. Oncol. 15: 1180-1202.
7. Shen, M., et al. 2022. Pharmacological disruption of the MTDH-SND1 complex enhances tumor antigen presentation and synergizes with anti-PD-1 therapy in metastatic breast cancer. Nat. Cancer 3: 60-74.
8. Chen, H., et al. 2022. Structure-based design, optimization, and evaluation of potent stabilized peptide inhibitors disrupting MTDH and SND1 interaction. J. Med. Chem. E-published.

RESEARCH USE

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