SANTA CRUZ BIOTECHNOLOGY, INC.

TTF (A-5): sc-398968

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The transcription termination factor TTF (RNA polymerase I, TTF1, TTF-I) exerts two functions in ribosomal gene (rDNA) transcription: facilitating initiation and mediating termination of transcription. Sequence-specific termination of DNA replication within mammalian ribosomal RNA genes is catalyzed by a DNA-protein complex that includes TTF. Mammalian ribosomal genes are flanked at their 5' and 3' ends by terminator sequences which are recognized by the transcription termination factor TTF. In HeLa cells, TTF protein co-localizes with the active transcription machinery in the nucleolus and also with the inactive machinery present in certain mitotic nucleolar organizer regions (NORs) when rDNA transcription is repressed.

REFERENCES

1. Kuhn, A., et al. 1990. Specific interaction of the murine transcription termination factor TTF I with class-I RNA polymerases. Nature 344: 559-562.
2. Evers, R., et al. 1995. Molecular coevolution of mammalian ribosomal gene terminator sequences and the transcription termination factor TTF-I. Proc. Natl. Acad. Sci. USA 92: 5827-5831.
3. Sander, E.E., et al. 1996. The amino-terminal domain of the transcription termination factor TTF-I causes protein oligomerization and inhibition of DNA binding. Nucleic Acids Res. 24: 3677-3684.
4. Langst, G., et al. 1997. RNA polymerase I transcription on nucleosomal templates: the transcription termination factor TTF-I induces chromatin remodeling and relieves transcriptional repression. EMBO J. 16: 760-768.
5. Sander, E.E., et al. 1997. Oligomerization of the transcription termination factor TTF-I: implications for the structural organization of ribosomal transcription units. Nucleic Acids Res. 25: 1142-1147.
6. Gerber, J.K., et al. 1997. Termination of mammalian rDNA replication: polar arrest of replication fork movement by transcription termination factor TTF-I. Cell 90: 559-567.

CHROMOSOMAL LOCATION

Genetic locus: Ttf1 (mouse) mapping to 2 A3.

SOURCE

TTF (A-5) is a mouse monoclonal antibody raised against amino acids 437-607 mapping within an internal region of TTF of mouse 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.

TTF (A-5) is available conjugated to agarose (sc-398968 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398968 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398968 PE), fluorescein (sc-398968 FITC), Alexa Fluor® 488 (sc-398968 AF488), Alexa Fluor® 546 (sc-398968 AF546), Alexa Fluor® 594 (sc-398968 AF594) or Alexa Fluor® 647 (sc-398968 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398968 AF680) or Alexa Fluor® 790 (sc-398968 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

TTF (A-5) is recommended for detection of TTF of mouse 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TTF siRNA (m): sc-38603, TTF shRNA Plasmid (m): sc-38603-SH and TTF shRNA (m) Lentiviral Particles: sc-38603-V.

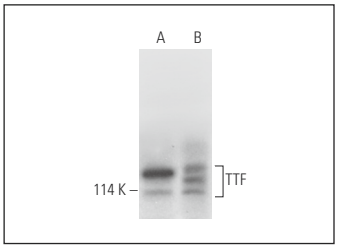
Molecular Weight of TTF: 105 kDa.

Positive Controls: c4 whole cell lysate: sc-364186 or NIH/3T3 nuclear extract: sc-2138.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



TTF (A-5): sc-398968. Western blot analysis of TTF expression in c4 whole cell lysate (**A**) and NIH/3T3 nuclear extract (**B**).

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 for detailed protocols and support products.