TIPIN (Z-25): sc-134090



The Power to Question

BACKGROUND

TIPIN (Timeless interacting protein) is a 301 amino acid protein that localizes to both the nucleus and the cytoplasm and belongs to the CSM3 family. Expressed abundantly in liver, thymus, brain and gastrointestinal tract, TIPIN interacts with Timeless and is required for both normal cell cycle progression and for cell survival after DNA damage or replication stress. Additionally, TIPIN may be required to pass the ATR replication checkpoint that is induced by UV light or Hydroxyurea. Human TIPIN shares 72% amino acid identity with its mouse counterpart, suggesting a conserved role between species. The gene encoding TIPIN maps to human chromosome 15, which houses over 700 genes and comprises nearly 3% of the human genome.

REFERENCES

- Gotter, A.L. 2003. TIPIN, a novel Timeless-interacting protein, is developmentally coexpressed with Timeless and disrupts its self-association. J. Mol. Biol. 331: 167-176.
- Chou, D.M. and Elledge, S.J. 2006. TIPIN and Timeless form a mutually protective complex required for genotoxic stress resistance and checkpoint function. Proc. Natl. Acad. Sci. USA 103: 18143-18147.
- Kaufmann, W.K. 2007. Initiating the uninitiated: replication of damaged DNA and carcinogenesis. Cell Cycle 6: 1460-1467.
- Yoshizawa-Sugata, N. and Masai, H. 2007. Human Tim/Timeless-interacting protein, TIPIN, is required for efficient progression of S phase and DNA replication checkpoint. J. Biol. Chem. 282: 2729-2740.
- Gotter, A.L., Suppa, C. and Emanuel, B.S. 2007. Mammalian Timeless and TIPIN are evolutionarily conserved replication fork-associated factors. J. Mol. Biol. 366: 36-52.
- Unsal-Kaçmaz, K., Chastain, P.D., Qu, P.P., Minoo, P., Cordeiro-Stone, M., Sancar, A. and Kaufmann, W.K. 2007. The human Tim/TIPIN complex coordinates an Intra-S checkpoint response to UV that slows replication fork displacement. Mol. Cell. Biol. 27: 3131-3142.
- 7. Errico, A., Costanzo, V. and Hunt, T. 2007. TIPIN is required for stalled replication forks to resume DNA replication after removal of aphidicolin in *Xenopus* egg extracts. Proc. Natl. Acad. Sci. USA 104: 14929-14934.
- 8. Kondratov, R.V. and Antoch, M.P. 2007. Circadian proteins in the regulation of cell cycle and genotoxic stress responses. Trends Cell Biol. 17: 311-317.
- 9. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 610716. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: TIPIN (human) mapping to 15q22.31; Tipin (mouse) mapping to 9 $\rm C$.

SOURCE

TIPIN (Z-25) is a protein A purified rabbit polyclonal antibody raised against synthetic TIPIN peptide of human origin.

PRODUCT

Each vial contains 100 μg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

TIPIN (Z-25) is recommended for detection of TIPIN of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TIPIN siRNA (h): sc-90290, TIPIN siRNA (m): sc-154283, TIPIN shRNA Plasmid (h): sc-90290-SH, TIPIN shRNA Plasmid (m): sc-154283-SH, TIPIN shRNA (h) Lentiviral Particles: sc-90290-V and TIPIN shRNA (m) Lentiviral Particles: sc-154283-V.

Molecular Weight (predicted) of TIPIN: 35 kDa.

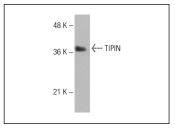
Molecular Weight (observed) of TIPIN: 48 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



TIPIN (Z-25): sc-134090. Western blot analysis of TIPIN expression in Jurkat whole cell lysate.

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 or our catalog for detailed protocols and support products.