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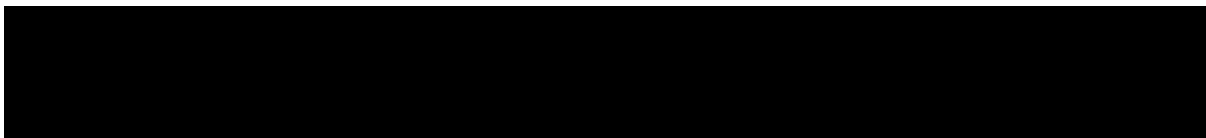
Antibodies to Cell Cycle-related Proteins

Anti-mouse Timeless Interacting Protein (TIPIN) antibodies (Cat # TMLS-101AP)

Timeless Interacting Protein (TIPIN) is a mammalian protein that interacts with Timeless (TMLS), which plays a role in DNA damage checkpoint responses. Mammalian TIM and its constitutive binding partner, TIPIN (ortholog of S.c. Csm3p, S.p. Swi3p), are replisome-associated proteins. Both proteins associate with components of the endogenous replication fork complex, and are present at BrdU-positive DNA replication sites. Further, the direct binding of the TIM-Tipin complex to the 34 kDa subunit of replication protein A provides a biochemical explanation for the potential coupling role of these proteins. Like TIM, TIPIN is also involved in the molecular mechanism of UV-dependent checkpoint activation and cell growth arrest. TIPIN additionally associates with peroxiredoxin2 and appears to be involved in checkpoint responses to H₂O₂, a role recently described for yeast versions of TIM and Tipin (1, 2).

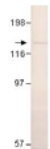
TIPIN is a nuclear protein that associates with the replicative helicase and protects cells against genotoxic agents. Tipin is required for efficient cell cycle arrest in response to DNA damage, and a reduction in TIPIN makes cells sensitive to ionizing radiation as well as replication stress. Loss of TIPIN causes the cells to become spontaneous gamma-H2AX foci, a marker for DNA double-strand breaks. TIPIN and Timeless form a complex via interacting near the N-terminal motifs that maintains the level of both proteins in cells and that the loss of either one will lead to the loss of the interacting partner (2), suggesting that complex formation is required for stabilization and nuclear accumulation of both proteins. TIPIN is capable of regulating TMLS activity by disrupting the ability of TIPIN to form homo-multimeric complexes, TMLS also forms a functional complex with TIPIN, and provide a starting point from which to link TIMLS to biochemical pathways controlling vital cellular functions. Mammalian TIPIN has 2 variants of 36kDa proteins, the mouse protein is slightly smaller (278aa) with significant homology to human TIPIN protein.

Anti-TIPIN antibodies are affinity purified on immobilized affinity based chromatography and characterized for their specificity for TIPIN on ELISA and Western blotting protocol using Western blot positive control sample. The TIPIN antibodies do not cross react with other genes involved in circadian rhythms including per, TIM2, TIMLS or with other cellular proteins. FabGennix Int. Inc., has also produced antibodies to TIMLS protein, for a complete listing please visit www.FabGennix.com. FabGennix Int. Inc., will also provide western blot positive control for TIPIN in ready-to-use buffer for SDS-PAGE and Western blotting experiment. Limited quantities of antigenic blocking peptides are also available (please inquire before placing the orders). FabGennix International Inc., will label these antibodies to fluorophores and secondary enzymes at nominal cost.



R = rat; M = mouse; H = human; C = chicken; monk = monkey ; * For 5 applications

- Immunogen:** Synthetic peptide (selective for TIPIN from aa 245-264: ded qke esn gln edi ldn pc). The peptide was amidated and post-synthesis modified to achieve desired antigenicity.
- Concentration:** TIPIN-101AP: IgG concentration 0.96-0.98 mg/ml in antibody stabilization buffer.
- Applications:** Antibody TIPIN-101AP is ideal for WB and ELISA, other applications have not been fully tested or investigated in detail. The dilutions for this antibody is for reference only, investigators are expected to determine the optimal conditions for specific assay. WB > 1:500; IMM & i.p pull-down assays: > n.d; IHC, n.d.
- Reactivity:** This antibody detects a single 36-38kDa in PC-TIPIN samples. TIPIN-101AP antibody also weakly labels an unknown high MW protein (approximately 110 kDa) protein. The antibody also does not label any other cellular protein on western blots.
- Protocols:** Standard protocol for various applications (WB, IMM and IHC) of this antibody is provided upon request, however, FabGennix Inc., strongly recommends investigators to optimize conditions for use of this antibody.
- Form/Storage:** The antiserum is supplied in antibody stabilization buffer with 0.02% sodium azide as preservative. For long-term storage of antibodies, store at -20°C. FabGennix Inc. does not recommend storage of very dilute antibody solutions unless they are prepared in specially formulated multi use antibody dilution buffer (Cat # DiluOBuffer). Working solutions of antibodies in DiluOBuffer should be filtered through 0.45µ filter after every use for long-term storage.



Western blot of TMLS antibody (TMLS-101AP) with PC-TIMLS. Antibody dilution 1:500 in DiluOBuffer. MWM on the left. Apparent MW of TIMLS is 145kDa.

Note: Now you can recycle your western blots (nitrocellulose, supported membranes and PVDF membranes) by using our StripOBuffer (Cat FGI-1989). Each stripping is guaranteed to give better signal (up to 8 stripping). No strong pungent smell of reducing agents or heating is required.

References:

1. Gotter AL, Suppa C, Emanuel BS. J Mammalian TIMELESS and Tipin are Evolutionarily Conserved Replication Fork-associated Factors. Mol Biol. 2006 Nov 3; [Epub ahead of print] Links
2. Chou DM, Elledge SJ. Tipin and Timeless form a mutually protective complex required for genotoxic stress resistance and checkpoint function. Proc Natl Acad Sci U S A. 2006 Nov 28;103(48):18143-7. Epub 2006 Nov 20. Links

* For users who may require large amounts of TIPIN-101AP, please enquire about bulk material discounts.
This Product is for Research Use Only and is NOT intended for use in humans or clinical diagnosis.

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