

# Anti-Timeless Antibody [JE51-39]

ET7110-23



|                            |                                                       |
|----------------------------|-------------------------------------------------------|
| <b>Product Type:</b>       | Recombinant Rabbit monoclonal IgG, primary antibodies |
| <b>Species reactivity:</b> | Human                                                 |
| <b>Applications:</b>       | WB, IHC-P                                             |
| <b>Molecular Wt:</b>       | Predicted band size: 139 kDa                          |
| <b>Clone number:</b>       | JE51-39                                               |

**Description:** Plays an important role in the control of DNA replication, maintenance of replication fork stability, maintenance of genome stability throughout normal DNA replication, DNA repair and in the regulation of the circadian clock. Required to stabilize replication forks during DNA replication by forming a complex with TIPIN: this complex regulates DNA replication processes under both normal and stress conditions, stabilizes replication forks and influences both CHEK1 phosphorylation and the intra-S phase checkpoint in response to genotoxic stress. TIMELESS promotes TIPIN nuclear localization. Involved in cell survival after DNA damage or replication stress by promoting DNA repair. In response to double-strand breaks (DSBs), accumulates at DNA damage sites and promotes homologous recombination repair via its interaction with PARP1. May be specifically required for the ATR-CHEK1 pathway in the replication checkpoint induced by hydroxyurea or ultraviolet light. Involved in the determination of period length and in the DNA damage-dependent phase advancing of the circadian clock. Negatively regulates CLOCK|NPAS2-ARTNL/BMAL1|ARTNL2/BMAL2-induced transactivation of PER1 possibly via translocation of PER1 into the nucleus. May also play an important role in epithelial cell morphogenesis and formation of branching tubules (By similarity).

|                               |                                                                                                                                                                            |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Immunogen:</b>             | Recombinant protein within Human Timeless aa 1,018-1,208 / 1,208.                                                                                                          |
| <b>Positive control:</b>      | Hela cell lysates, 293T cell lysates, Daudi cell lysates, human tonsil tissue, human colon carcinoma tissue, human gastric carcinoma tissue, human small intestine tissue. |
| <b>Subcellular location:</b>  | Chromosome, Nucleus.                                                                                                                                                       |
| <b>Database links:</b>        | SwissProt: Q9UNS1 Human                                                                                                                                                    |
| <b>Recommended Dilutions:</b> |                                                                                                                                                                            |
| <b>WB</b>                     | 1:500-1:2,000                                                                                                                                                              |
| <b>IHC-P</b>                  | 1:50-1:200                                                                                                                                                                 |
| <b>Storage Buffer:</b>        | 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.                                                                                                  |
| <b>Storage Instruction:</b>   | Store at +4°C after thawing. Aliquot store at -20°C. Avoid repeated freeze / thaw cycles.                                                                                  |
| <b>Purity:</b>                | Protein A affinity purified.                                                                                                                                               |

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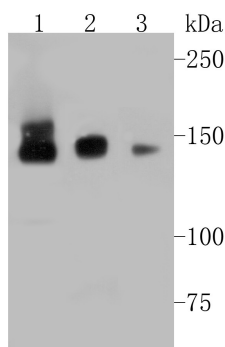
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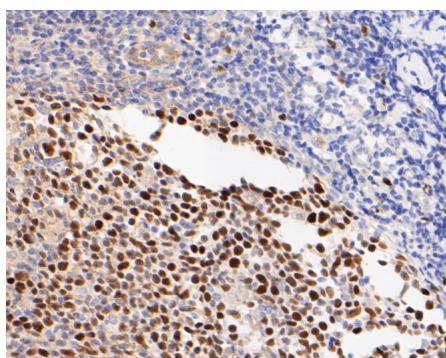
**Fig1:** Western blot analysis of Timeless on different lysates. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (ET7110-23, 1/500) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:5,000 dilution was used for 1 hour at room temperature.

**Positive control:**

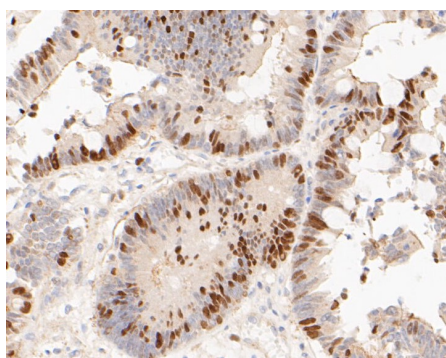
Lane 1: Hela cell lysate

Lane 2: 293T cell lysate

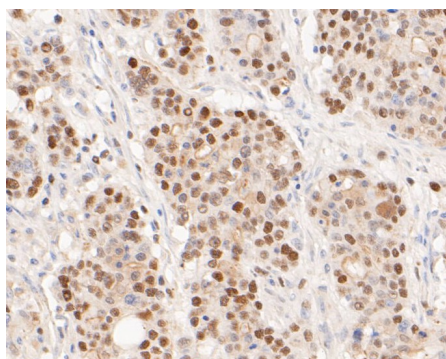
Lane 3: Daudi cell lysate



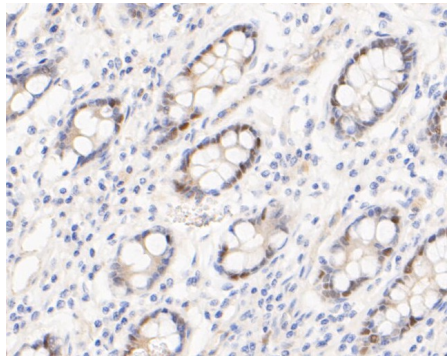
**Fig2:** Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti-Timeless antibody. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET7110-23, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX



**Fig3:** Immunohistochemical analysis of paraffin-embedded human colon carcinoma tissue using anti-Timeless antibody. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET7110-23, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX



**Fig4:** Immunohistochemical analysis of paraffin-embedded human gastric carcinoma tissue using anti-Timeless antibody. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET7110-23, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX



**Fig5:** Immunohistochemical analysis of paraffin-embedded human small intestine tissue using anti-Timeless antibody. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET7110-23, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX

**Note:** All products are “FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE”.

### Background References

1. Xie S. et. al. Timeless interacts with PARP-1 to promote homologous recombination repair. *Mol. Cell* 60:163-176(2015).
2. Liu H. et. al. Nuclear cGAS suppresses DNA repair and promotes tumorigenesis. *Nature* 563:131-136(2018).