

Product Information

Anti-Timeless (N-terminal)

produced in rabbit, affinity isolated antibody

Catalog Number **T6579**

Product Description

Anti-Timeless (N-terminal) is produced in rabbit using as immunogen a synthetic peptide corresponding to amino acids 14-30 of human Timeless (GenelD: 8914) conjugated to KLH. The corresponding sequence differs by one amino acid in mouse and rat. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-Timeless (N-terminal) recognizes human Timeless (also known as hTIM, TIM, TIM1, Timeless1). The antibody may be used in several immunochemical techniques including immunoblotting (~160 kDa, an additional non specific band at ~95 kDa may appear in different cell lysates), immunoprecipitation and immunofluorescence. Detection of the Timeless band by immunoblotting is specifically inhibited with the immunizing peptide.

Mammalian Timeless was initially identified as an ortholog of the *Drosophila* circadian clock gene dTim¹, however a less substantiated role in mammalian circadian clock mechanism was found. Later, phylogenetic analysis suggested higher similarity to a family of cell cycle-related proteins including budding yeast Tof1, *Caenorhabditis elegans* TIM-1, and *Drosophila* Tim-2/Timeout (dTim2/dTimeout).² Timeless, and its constitutively binding partner Tipin, found by two hybrid screening,³ associate with components of the replication fork complex through direct binding with the 34 kDa subunit of replication protein A, and are important for efficient DNA synthesis.⁴ In addition to Timeless' role in replication checkpoint responses to genotoxic stress,^{4, 5} it was shown also to play an important role in maintenance of genome stability during unperturbed DNA replication.⁶

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: ~1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots at -20 °C. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working antibody concentration of 0.5-1 µg/mL is recommended using lysates of HEK-293T cells overexpressing human Timeless.

Immunoprecipitation: a working antibody amount of 5-10 µg is recommended using lysates of HEK-293T cells overexpressing human Timeless.

Immunofluorescence: a working antibody concentration of 2.5-5 µg/mL is recommended using paraformaldehyde fixed HEK-293T cells overexpressing human Timeless.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

References

1. Sangoram, A.M., et al., *Neuron*, **21**, 1101-1113 (1998).
2. Gotter, A.L., *Neuroreport*, **17**, 1229-1233 (2006).
3. Gotter, A.L., *J. Mol. Biol.*, **331**, 167-176 (2003).
4. Gotter, A.L., et al., *J. Mol. Biol.*, **366**, 36-52 (2007).
5. Unsal-Kacmaz, K., et al., *Mol. Cell. Biol.*, **27**, 3131-3142 (2007).
6. Urtishak, K.A., et al., *J. Biol. Chem.*, **284**, 8777-8785 (2009).

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