

TIMELESS Rabbit mAb
Catalog # AP76176

Specification

TIMELESS Rabbit mAb - Product Information

Application	WB
Primary Accession	<u>Q9UNS1</u>
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	138658

TIMELESS Rabbit mAb - Additional Information

Gene ID 8914

Other Names

TIMELESS

Dilution

WB ~ 1/500-1/1000

Format

Liquid

TIMELESS Rabbit mAb - Protein Information

Name TIMELESS {ECO:0000312|EMBL:AAH50557.1}

Function

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 (PubMed:17141802, PubMed:17296725, PubMed:23359676, PubMed:23418588, PubMed:26344098, PubMed:31138685, PubMed:32705708, PubMed:35585232, PubMed:9856465). 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 (PubMed:17141802, PubMed:17296725, PubMed:23359676, PubMed:23418588, PubMed:26344098, PubMed:31138685, PubMed:32705708, PubMed:35585232, PubMed:9856465).

[35585232](http://www.uniprot.org/citations/35585232)). During DNA replication, inhibits the CMG complex ATPase activity and activates DNA polymerases catalytic activities, coupling DNA unwinding and DNA synthesis (PubMed:[23359676](http://www.uniprot.org/citations/23359676)). TIMELESS promotes TIPIN nuclear localization (PubMed:[17141802](http://www.uniprot.org/citations/17141802), PubMed:[17296725](http://www.uniprot.org/citations/17296725)). Plays a role in maintaining processive DNA replication past genomic guanine-rich DNA sequences that form G- quadruplex (G4) structures, possibly together with DDX1 (PubMed:[32705708](http://www.uniprot.org/citations/32705708)). Involved in cell survival after DNA damage or replication stress by promoting DNA repair (PubMed:[17141802](http://www.uniprot.org/citations/17141802), PubMed:[17296725](http://www.uniprot.org/citations/17296725), PubMed:[26344098](http://www.uniprot.org/citations/26344098), PubMed:[30356214](http://www.uniprot.org/citations/30356214)). In response to double-strand breaks (DSBs), accumulates at DNA damage sites and promotes homologous recombination repair via its interaction with PARP1 (PubMed:[26344098](http://www.uniprot.org/citations/26344098), PubMed:[30356214](http://www.uniprot.org/citations/30356214), PubMed:[31138685](http://www.uniprot.org/citations/31138685)). May be specifically required for the ATR-CHEK1 pathway in the replication checkpoint induced by hydroxyurea or ultraviolet light (PubMed:[15798197](http://www.uniprot.org/citations/15798197)). Involved in the determination of period length and in the DNA damage-dependent phase advancing of the circadian clock (PubMed:[23418588](http://www.uniprot.org/citations/23418588), PubMed:[31138685](http://www.uniprot.org/citations/31138685)). Negatively regulates CLOCK|NPAS2- ARTNL/BMAL1|ARTNL2/BMAL2-induced transactivation of PER1 possibly via translocation of PER1 into the nucleus (PubMed:[31138685](http://www.uniprot.org/citations/31138685), PubMed:[9856465](http://www.uniprot.org/citations/9856465)). May play a role as destabilizer of the PER2-CRY2 complex (PubMed:[31138685](http://www.uniprot.org/citations/31138685)). May also play an important role in epithelial cell morphogenesis and formation of branching tubules (By similarity).

Cellular Location

Nucleus. Chromosome Note=In response to double-strand breaks (DSBs), accumulates at DNA damage sites via its interaction with PARP1

Tissue Location

Expressed in all tissues examined including brain, heart, lung, liver, skeletal muscle, kidney, placenta, pancreas, spleen, thymus and testis. Highest levels of expression in placenta, pancreas, thymus and testis.

TIMELESS Rabbit mAb - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

TIMELESS Rabbit mAb - Images

