abcam

Product datasheet

Anti-Werner's syndrome helicase WRN antibody ab58061

2 Images

Overview

Product name	Anti-Werner's syndrome helicase WRN antibody
Description	Mouse monoclonal to Werner's syndrome helicase WRN
Host species	Mouse
Tested applications	**Suitable for:** WB, ICC/IF
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant fragment, corresponding to amino acids 1322-1433 of Human Werner's syndrome helicase WRN

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: None PBS, pH 7.2
Purity	Protein G purified
Clonality	Monoclonal
Isotype	IgG2a
Light chain type	kappa

Applications

Our Abpromise guarantee covers the use of **ab58061** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 1 - 5 µg/ml. Predicted molecular weight: 162 kDa.

Application	Abreviews	Notes
ICC/IF		Use a concentration of 10 µg/ml.

Target

Function

Multifunctional enzyme that has both magnesium and ATP-dependent DNA-helicase activity and 3'->5' exonuclease activity towards double-stranded DNA with a 5'-overhang. Has no nuclease activity towards single-stranded DNA or blunt-ended double-stranded DNA. Binds preferentially to DNA substrates containing alternate secondary structures, such as replication forks and Holliday junctions. May play an important role in the dissociation of joint DNA molecules that can arise as products of homologous recombination, at stalled replication forks or during DNA repair. Alleviates stalling of DNA polymerases at the site of DNA lesions. Important for genomic integrity. Plays a role in the formation of DNA replication focal centers; stably associates with foci elements generating binding sites for RP-A.

Involvement in disease

Defects in WRN are a cause of Werner syndrome (WRN) [MIM:277700]. WRN is a rare autosomal recessive progeroid syndrome characterized by the premature onset of multiple age-related disorders, including atherosclerosis, cancer, non-insulin-dependent diabetes mellitus, ocular cataracts and osteoporosis. The major cause of death, at a median age of 47, is myocardial infarction. Currently all known WS mutations produces prematurely terminated proteins.
Defects in WRN may be a cause of colorectal cancer (CRC) [MIM:114500].

Sequence similarities

Belongs to the helicase family. RecQ subfamily.
Contains 1 3'-5' exonuclease domain.
Contains 1 helicase ATP-binding domain.
Contains 1 helicase C-terminal domain.
Contains 1 HRDC domain.

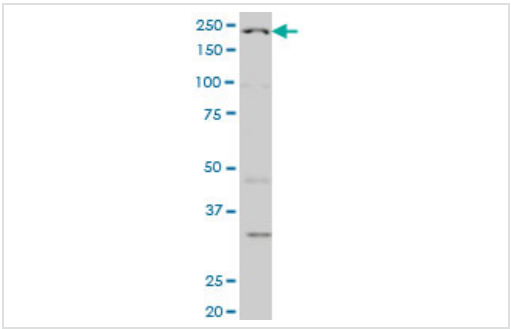
Post-translational modifications

Phosphorylated by PRKDC. Phosphorylated upon DNA damage, probably by ATM or ATR.

Cellular localization

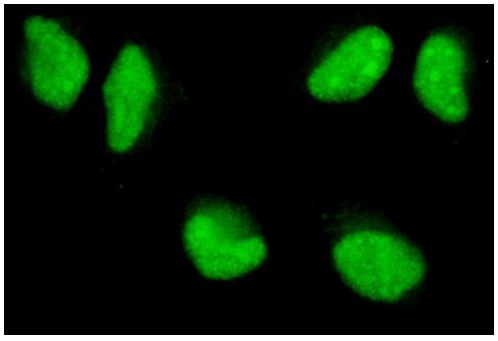
Nucleus > nucleolus. Nucleus.

Images



Western blot - Werners syndrome helicase WRN antibody (ab58061)

Werners syndrome helicase WRN antibody (ab58061) at 1ug/lane + HeLa cell lysate at 25ug/lane.



Immunocytochemistry/ Immunofluorescence- Werner's syndrome helicase WRN antibody(ab58061)

ab58061 at 10 ug/ml staining Werner's syndrome helicase WRN in human Hella cells by Immunocytochemistry/ Immunofluorescence.

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