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WRN Antibody
Rabbit mAb
Catalog # AP92484

Specification

WRN Antibody - Product Information

Application	**WB**
Primary Accession	Q14191
Clonality	**Monoclonal**

Other Names
Exonuclease WRN; RecQ3; RECQL2; RECQL3; Werner syndrome helicase; WRN;

Isotype	**Rabbit IgG**
Host	**Rabbit**
Calculated MW	**162461 Da**

WRN Antibody - Additional Information

Dilution	**WB~~1:1000**
Purification	**Affinity-chromatography**
Immunogen	**A synthesized peptide derived from human WRN**
Description	**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.**
Storage Condition and Buffer	**Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.**

WRN Antibody - Protein Information

Name WRN

Synonyms RECQ3, RECQL2

Function
Multifunctional enzyme that has magnesium and ATP-dependent 3'-5' DNA-helicase activity on partially duplex substrates (PubMed:9224595, PubMed:<a href="http://www.uniprot.org/citations/9288107"

target="_blank">9288107, PubMed:9611231). Also has 3'->5' exonuclease activity towards double-stranded (ds)DNA with a 5'-overhang (PubMed:11863428). Has no nuclease activity towards single-stranded (ss)DNA or blunt-ended dsDNA (PubMed:11863428). Helicase activity is most efficient with (d)ATP, but (d)CTP will substitute with reduced efficiency; strand displacement is enhanced by single-strand binding-protein (heterotrimeric replication protein A complex, RPA1, RPA2, RPA3) (PubMed:9611231). 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. Plays a role in the formation of DNA replication focal centers; stably associates with foci elements generating binding sites for RP-A (By similarity). Plays a role in double-strand break repair after gamma- irradiation (PubMed:9224595, PubMed:9288107, PubMed:9611231). Unwinds some G-quadruplex DNA (d(CGG)n tracts); unwinding seems to occur in both 5'-3' and 3'-5' direction and requires a short single-stranded tail (PubMed:10212265). d(CGG)n tracts have a propensity to assemble into tetraplex structures; other G-rich substrates from a telomeric or IgG switch sequence are not unwound (PubMed:10212265). Depletion leads to chromosomal breaks and genome instability (PubMed:33199508).

Cellular Location
Nucleus, nucleolus. Nucleus. Nucleus, nucleoplasm. Chromosome. Note=Gamma-irradiation leads to its translocation from nucleoli to nucleoplasm and PML regulates the irradiation-induced WRN relocation (PubMed:21639834). Localizes to DNA damage sites (PubMed:27063109).

WRN Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

WRN Antibody - Images

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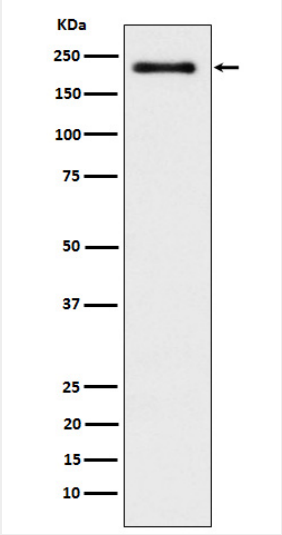

Western blot analysis of WRN expression in K562 cell lysate.