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Anti-WRN Rabbit Monoclonal Antibody

Catalog # ABO15903

Product Information

Application	WB
Primary Accession	Q14191
Host	Rabbit
Isotype	IgG
Reactivity	Human
Clonality	Monoclonal
Format	Liquid
Description	Anti-WRN Rabbit Monoclonal Antibody . Tested in WB application. This antibody reacts with Human.

Additional Information

Gene ID	7486
Other Names	Bifunctional 3'-5' exonuclease/ATP-dependent helicase WRN, DNA helicase, RecQ-like type 3, RecQ protein-like 2, Werner syndrome protein, 3'-5' exonuclease, 3.1.-.-, ATP-dependent helicase, 5.6.2.4, DNA 3'-5' helicase WRN, WRN, RECQ3, RECQL2
Calculated MW	162461
Application Details	WB 1:500-1:2000
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: 24W80
Immunogen	A synthesized peptide derived from human WRN
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Protein Information

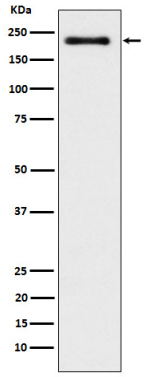
Name	WRN
Synonyms	RECQ3, RECQL2
Function	Multifunctional enzyme that has magnesium and ATP-dependent 3'-5'

DNA-helicase activity on partially duplex substrates (PubMed:9224595, PubMed: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).

Images



Western blot analysis of WRN expression in K562 cell lysate.

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