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DCLRE1B Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP5426c

Specification

DCLRE1B Antibody (Center) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	Q9H816
Other Accession	NP_073747.1
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**208-236**

DCLRE1B Antibody (Center) - Additional Information

Gene ID 64858

Other Names
5' exonuclease Apollo, 31--, DNA cross-link repair 1B protein, SNM1 homolog B, SNMIB, hSNM1B, DCLRE1B, SNM1B

Target/Specificity
This DCLRE1B antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 208-236 amino acids from the Central region of human DCLRE1B.

Dilution
WB~~1:1000
IHC-P~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
DCLRE1B Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

DCLRE1B Antibody (Center) - Protein Information

Name DCLRE1B

Synonyms SNM1B

Function 5'-3' exonuclease that plays a central role in telomere maintenance and protection during S-phase. Participates in the protection of telomeres against non-homologous end-joining (NHEJ)- mediated repair, thereby ensuring that telomeres do not fuse. Plays a key role in telomeric loop (T loop) formation by being recruited by TERF2 at the leading end telomeres and by processing leading-end telomeres immediately after their replication via its exonuclease activity: generates 3' single-stranded overhang at the leading end telomeres avoiding blunt leading-end telomeres that are vulnerable to end-joining reactions and expose the telomere end in a manner that activates the DNA repair pathways. Together with TERF2, required to protect telomeres from replicative damage during replication by controlling the amount of DNA topoisomerase (TOP1, TOP2A and TOP2B) needed for telomere replication during fork passage and prevent aberrant telomere topology. Also involved in response to DNA damage: plays a role in response to DNA interstrand cross-links (ICLs) by facilitating double-strand break formation. In case of spindle stress, involved in prophase checkpoint. Possesses beta-lactamase activity, catalyzing the hydrolysis of penicillin G and nitrocefin (PubMed:31434986). Exhibits no activity towards other beta-lactam antibiotic classes including cephalosporins (cefotaxime) and carbapenems (imipenem) (PubMed:31434986).

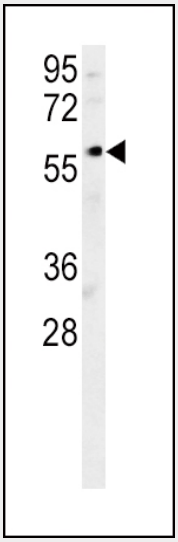
Cellular Location
Chromosome, telomere. Nucleus. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Note=Mainly localizes to telomeres, recruited via its interaction with TERF2 During mitosis, localizes to the centrosome

DCLRE1B Antibody (Center) - 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

DCLRE1B Antibody (Center) - Images



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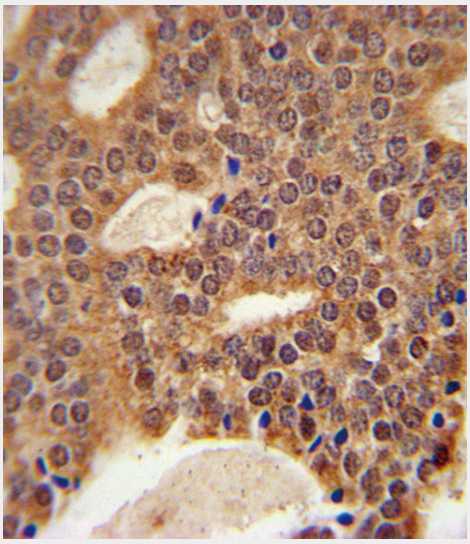
DCLRE1B Antibody (Center)(Cat. #AP5426c) western blot analysis in mouse kidney tissue lysates (35ug/lane).This demonstrates the DCLRE1B antibody detected DCLRE1B protein (arrow).



DCLRE1B Antibody (Center) (Cat. #AP5426c) immunohistochemistry analysis in formalin fixed and paraffin embedded human prostate carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the DCLRE1B Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

DCLRE1B Antibody (Center) - Background

DNA interstrand cross-links prevent strand separation, thereby physically blocking transcription, replication, and segregation of DNA. DCLRE1B is one of several evolutionarily conserved genes involved in repair of interstrand cross-links (Dronkert et al., 2000 [PubMed 10848582]).

DCLRE1B Antibody (Center) - References

Anders, M., et al. Cell Cycle 8(11):1725-1732(2009) Liu, L., et al. Cell Cycle 8(4):628-638(2009) Freibaum, B.D., et al. J. Biol. Chem. 283(35):23671-23676(2008) Bae, J.B., et al. Oncogene 27(37):5045-5056(2008) Demuth, I., et al. DNA Repair (Amst.) 7(8):1192-1201(2008) Matsuoka, S., et al. Science 316(5828):1160-1166(2007) Lenain, C., et al. Curr. Biol. 16(13):1303-1310(2006) Freibaum, B.D., et al. J. Biol. Chem. 281(22):15033-15036(2006) Ishiai, M., et al. Mol. Cell. Biol. 24(24):10733-10741(2004) Demuth, I., et al. Oncogene 23(53):8611-8618(2004) Dronkert, M.L., et al. Mol. Cell. Biol. 20(13):4553-4561(2000)

DCLRE1B Antibody (Center) - Citations

- Characterization of the human SNM1A and SNM1B/Apollo DNA repair exonucleases.