10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

DCLRE1C Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9737a

Specification

DCLRE1C Antibody (N-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	Q96SD1
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**78436**
Antigen Region	**21-50**

DCLRE1C Antibody (N-term) - Additional Information

Gene ID 64421

Other Names
Protein artemis, 31--, DNA cross-link repair 1C protein, Protein A-SCID, SNM1 homolog C, hSNM1C, SNM1-like protein, DCLRE1C, ARTEMIS, ASCID, SCIDA, SNM1C

Target/Specificity
This DCLRE1C antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 21-50 amino acids from the N-terminal region of human DCLRE1C.

Dilution
WB~~1:2000
IHC-P~~1:50~100

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
DCLRE1C Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

DCLRE1C Antibody (N-term) - Protein Information

Name DCLRE1C (HGNC:17642)

Function Nuclease involved in DNA non-homologous end joining (NHEJ); required for

double-strand break repair and V(D)J recombination (PubMed:11336668, PubMed:11955432, PubMed:12055248, PubMed:14744996, PubMed:15071507, PubMed:15574326, PubMed:15936993). Required for V(D)J recombination, the process by which exons encoding the antigen-binding domains of immunoglobulins and T-cell receptor proteins are assembled from individual V, (D), and J gene segments (PubMed:11336668, PubMed:11955432, PubMed:14744996). V(D)J recombination is initiated by the lymphoid specific RAG endonuclease complex, which generates site specific DNA double strand breaks (DSBs) (PubMed:11336668, PubMed:11955432, PubMed:14744996). These DSBs present two types of DNA end structures: hairpin sealed coding ends and phosphorylated blunt signal ends (PubMed:11336668, PubMed:11955432, PubMed:14744996). These ends are independently repaired by the non homologous end joining (NHEJ) pathway to form coding and signal joints respectively (PubMed:11336668, PubMed:11955432, PubMed:14744996). This protein exhibits single-strand specific 5'-3' exonuclease activity in isolation and acquires endonucleolytic activity on 5' and 3' hairpins and overhangs when in a complex with PRKDC (PubMed:15071507, PubMed:15574326, PubMed:11955432, PubMed:15936993). The latter activity is required specifically for the resolution of closed hairpins prior to the formation of the coding joint (PubMed:11955432). Also required for the repair of complex DSBs induced by ionizing radiation, which require substantial end-processing prior to religation by NHEJ (PubMed:15456891, PubMed:15468306, PubMed:15574327, PubMed:15811628).

Cellular Location
Nucleus

Tissue Location
Ubiquitously expressed, with highest levels in the kidney, lung, pancreas and placenta (at the mRNA level). Expression is not increased in thymus or bone marrow, sites of V(D)J recombination

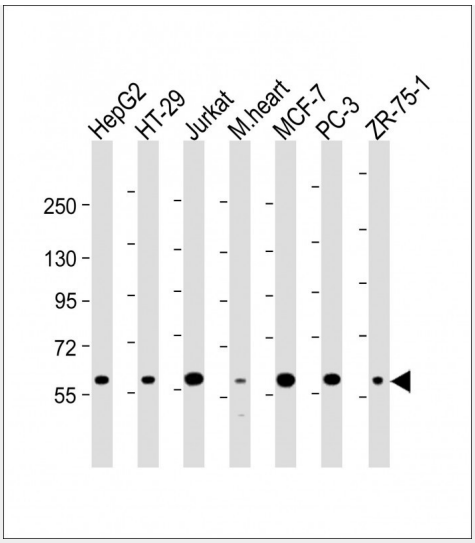
DCLRE1C Antibody (N-term) - Protocols

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

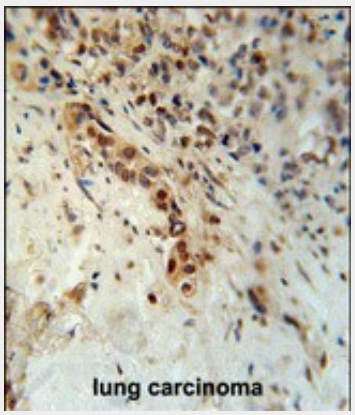
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

DCLRE1C Antibody (N-term) - Images

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All lanes : Anti-DCLRE1C Antibody (N-term) at 1:2000 dilution Lane 1: HepG2 whole cell lysate Lane 2: HT-29 whole cell lysate Lane 3: Jurkat whole cell lysate Lane 4: mouse heart lysate Lane 5: MCF-7 whole cell lysate Lane 5: PC-3 whole cell lysate Lane 5: ZR-75-1 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 78 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



DCLRE1C Antibody (N-term) (Cat. #AP9737a) immunohistochemistry analysis in formalin fixed and paraffin embedded human lung carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the DCLRE1C Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

DCLRE1C Antibody (N-term) - Background

DCLRE1C is a nuclear protein that is involved in V(D)J recombination and DNA repair. The protein has single-strand-specific 5'-3' exonuclease activity; it also exhibits endonuclease activity on 5' and 3' overhangs and hairpins when complexed with protein kinase, DNA-activated, catalytic polypeptide.

DCLRE1C Antibody (N-term) - References

Beucher, A., et al. EMBO J. 28(21):3413-3427(2009)
Rivera-Munoz, P., et al. Blood 114(17):3601-3609(2009)
Wang, H., et al. J. Biol. Chem. 284(27):18236-18243(2009)