

Product Name: RNA Helicase A (4L3) Rabbit Monoclonal Antibody
Catalog #: AMRe17271

Summary

Production Name	RNA Helicase A (4L3) Rabbit Monoclonal Antibody
Description	Rabbit Monoclonal Antibody
Host	Rabbit
Application	WB
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Monoclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Supplied in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% New type preservative N and 0.05% BSA.
Purification	Affinity purification

Immunogen

Gene Name	DHX9
Alternative Names	DDX 9; DDX9; dhx9; Leukophysin; LKP; NDH2; NDHII; RHA;
Gene ID	1660.0
SwissProt ID	Q08211.A synthetic peptide of human RNA Helicase A

Application

Dilution Ratio	WB: 1:2000-1:10000
Molecular Weight	141kDa

Background

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Unwinds double-stranded DNA and RNA in a 3' to 5' direction. Alteration of secondary structure may subsequently influence interactions with proteins or other nucleic acids. Functions as a transcriptional activator. Component of the CRD-mediated complex that promotes MYC mRNA stability. Multifunctional ATP-dependent nucleic acid helicase that unwinds DNA and RNA in a 3' to 5' direction and that plays important roles in many processes, such as DNA replication, transcriptional activation, post-transcriptional RNA regulation, mRNA translation and RNA-mediated gene silencing (PubMed: [9111062](http://www.uniprot.org/citations/9111062), PubMed: [11416126](http://www.uniprot.org/citations/11416126), PubMed: [12711669](http://www.uniprot.org/citations/12711669), PubMed: [15355351](http://www.uniprot.org/citations/15355351), PubMed: [16680162](http://www.uniprot.org/citations/16680162), PubMed: [17531811](http://www.uniprot.org/citations/17531811), PubMed: [20669935](http://www.uniprot.org/citations/20669935), PubMed: [21561811](http://www.uniprot.org/citations/21561811), PubMed: [24049074](http://www.uniprot.org/citations/24049074), PubMed: [25062910](http://www.uniprot.org/citations/25062910), PubMed: [24990949](http://www.uniprot.org/citations/24990949), PubMed: [28221134](http://www.uniprot.org/citations/28221134)). Requires a 3'-single-stranded tail as entry site for acid nuclei unwinding activities as well as the binding and hydrolyzing of any of the four ribo- or deoxyribo-nucleotide triphosphates (NTPs) (PubMed: [1537828](http://www.uniprot.org/citations/1537828)). Unwinds numerous nucleic acid substrates such as double-stranded (ds) DNA and RNA, DNA:RNA hybrids, DNA and RNA forks composed of either partially complementary DNA duplexes or DNA:RNA hybrids, respectively, and also DNA and RNA displacement loops (D- and R-loops), triplex-helical DNA (H-DNA) structure and DNA and RNA-based G-quadruplexes (PubMed: [20669935](http://www.uniprot.org/citations/20669935), PubMed: [21561811](http://www.uniprot.org/citations/21561811), PubMed: [24049074](http://www.uniprot.org/citations/24049074)). Binds dsDNA, single-stranded DNA (ssDNA), dsRNA, ssRNA and poly(A)-containing RNA (PubMed: [9111062](http://www.uniprot.org/citations/9111062), PubMed: [10198287](http://www.uniprot.org/citations/10198287)). Binds also to circular dsDNA or dsRNA of either linear and/or circular forms and stimulates the relaxation of supercoiled DNAs catalyzed by topoisomerase TOP2A (PubMed: [12711669](http://www.uniprot.org/citations/12711669)). Plays a role in DNA replication at origins of replication and cell cycle progression (PubMed: [24990949](http://www.uniprot.org/citations/24990949)). Plays a role as a transcriptional coactivator acting as a bridging factor between polymerase II holoenzyme and transcription factors or cofactors, such as BRCA1, CREBBP, RELA and SMN1 (PubMed: [11149922](http://www.uniprot.org/citations/11149922), PubMed: [9323138](http://www.uniprot.org/citations/9323138)

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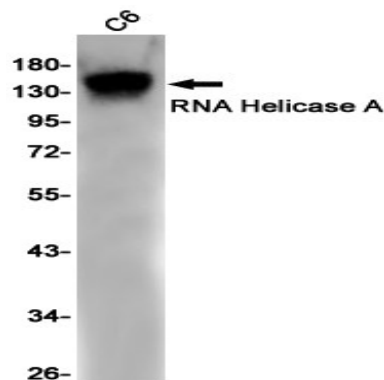
target="_blank">9323138, PubMed:9662397, PubMed:11038348, PubMed:11416126, PubMed:15355351, PubMed:28221134). Binds to the CDKN2A promoter (PubMed:11038348). Plays several roles in post-transcriptional regulation of gene expression (PubMed:28221134, PubMed:28355180). In cooperation with NUP98, promotes pre-mRNA alternative splicing activities of a subset of genes (PubMed:11402034, PubMed:16680162, PubMed:28221134, PubMed:28355180). As component of a large PER complex, is involved in the negative regulation of 3' transcriptional termination of circadian target genes such as PER1 and NR1D1 and the control of the circadian rhythms (By similarity). Acts also as a nuclear resolvase that is able to bind and neutralize harmful massive secondary double-stranded RNA structures formed by inverted-repeat Alu retrotransposon elements that are inserted and transcribed as parts of genes during the process of gene transposition (PubMed:28355180). Involved in the positive regulation of nuclear export of constitutive transport element (CTE)-containing unspliced mRNA (PubMed:9162007, PubMed:10924507, PubMed:11402034). Component of the coding region determinant (CRD)-mediated complex that promotes cytoplasmic MYC mRNA stability (PubMed:19029303). Plays a role in mRNA translation (PubMed:28355180). Positively regulates translation of selected mRNAs through its binding to post-transcriptional control element (PCE) in the 5'-untranslated region (UTR) (PubMed:16680162). Involved with LARP6 in the translation stimulation of type I collagen mRNAs for CO1A1 and CO1A2 through binding of a specific stem-loop structure in their 5'-UTRs (PubMed:22190748). Stimulates LIN28A- dependent mRNA translation probably by facilitating ribonucleoprotein remodeling during the process of translation (PubMed:21247876). Plays also a role as a small interfering (siRNA)-loading factor involved in the RNA-induced silencing complex (RISC) loading complex (RLC) assembly, and hence functions in the RISC-mediated gene silencing process (PubMed:17531811).

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target="_blank">17531811). Binds preferentially to short double- stranded RNA, such as those produced during rotavirus intestinal infection (PubMed:28636595). This interaction may mediate NLRP9 inflammasome activation and trigger inflammatory response, including IL18 release and pyroptosis (PubMed:28636595). Finally, mediates the attachment of heterogeneous nuclear ribonucleoproteins (hnRNPs) to actin filaments in the nucleus (PubMed:11687588).

Research Area

Image Data



Western blot detection of RNA Helicase A in C6 cell lysates using RNA Helicase A antibody(1:1000 diluted).

Note

For research use only.