

Rabbit DHX9 Polyclonal Antibody | anti-DHX9 antibody

DHX9 Antibody

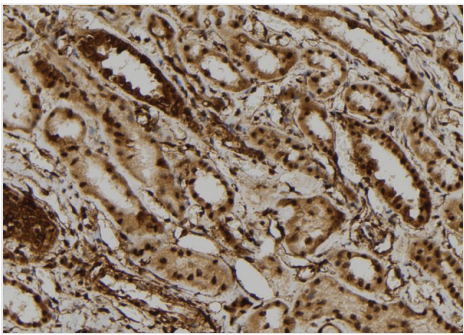
CATALOG # AAA323090	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS Immunohistochemistry, Western Blot
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PRODUCT SYNONYMS

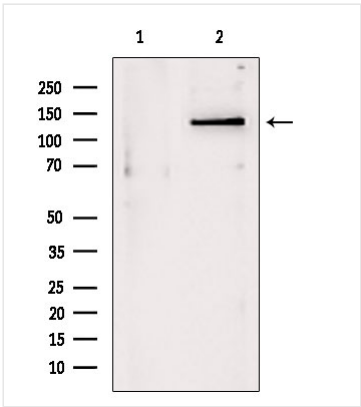
DHX9; Polyclonal Antibody; DHX9 Antibody; ATP dependent RNA helicase A; ATP-dependent RNA helicase A; DDX 9; DDX9; DEAD/H (Asp Glu Ala Asp/His) box polypeptide 9; DEAD/H box 9; DEAD/H box polypeptide 9; DEAH (Asp Glu Ala His) box polypeptide 9; DEAH box polypeptide 9; DEAH box protein 9; DHX 9; dhx9; DHX9_HUMAN; Leukophysin; LKP; NDH 2; NDH II; NDH2; NDHII; Nuclear DNA helicase II; RHA; anti-DHX9 antibody

PRODUCT SPECIFICATIONS

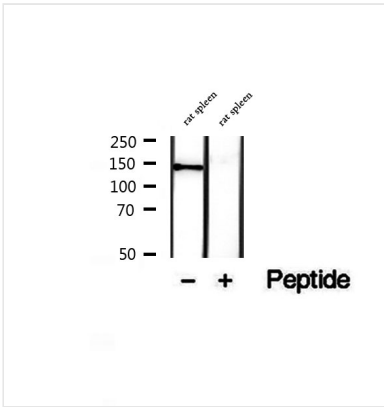
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	DHX9 antibody detects endogenous levels of DHX9.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	1270
Applicable Applications for anti-DHX9 antibody	IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human DHX9.
Subcellular Location	Nucleus > Nucleolus. Cytoplasm. Localized in cytoplasmic mRNP granules containing untranslated mRNAs. Can shuttle between nucleus and cytoplasm.
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Sheep, Rabbit, Dog, Xenopus
Similarity	Pig (100%), Zebrafish (89%), Bovine (100%), Sheep (100%), Rabbit (100%), Dog (100%), Xenopus (82%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IHC (Immunohistochemisry)
AAA323090 at 1/100 staining Human kidney tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of extracts from Mouse myeloma, using DHX9 antibody. Lane 1 was treated with the blocking peptide.



WB (Western Blot)
Western blot analysis of extracts of rat spleen tissue, using DHX9 antibody.

Related Product Information for anti-DHX9 antibody

Function: 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, PubMed:11416126, PubMed:12711669, PubMed:15355351, PubMed:16680162, PubMed:17531811, PubMed:20669935, PubMed:21561811, PubMed:24049074, PubMed:25062910, PubMed:24990949, PubMed: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). 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, PubMed:21561811, PubMed:24049074). Binds dsDNA, single-stranded DNA (ssDNA), dsRNA, ssRNA and poly(A)-containing RNA (PubMed:9111062, PubMed: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). Plays a role in DNA replication at origins of replication and cell cycle progression (PubMed: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, PubMed: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). 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).

Subunit Structure: Component of the coding region determinant (CRD)-mediated complex, composed of DHX9, HNRNPU, IGF2BP1, SYNCRIP and YBX1 (PubMed:19029303). Identified in a mRNA complex, at least composed of DHX9, DDX3X, ELAVL1, HNRNPU, IGF2BP1, ILF3, PABPC1, PCBP2, PTBP2, STAU1, STAU2, SYNCRIP and YBX1 (PubMed:19029303). Identified in a IGF2BP1-dependent mRNP granule complex containing untranslated mRNAs (PubMed:17289661). The large PER complex involved in the repression of transcriptional termination is composed of at least PER2, CDK9, DDX5, DHX9, NCBP1 and POLR2A (active) (By similarity). Associates (via DRBM domains) with the RISC complex; this association occurs in a small interfering (siRNA)-dependent manner (PubMed:17531811, PubMed:23361462). Associates with the SMN complex; this association induces recruitment of DHX9 to the RNA polymerase II (ref.8). Associates with polysomes in a LIN28A-dependent manner (PubMed:16680162, PubMed:21247876). Interacts (via C-terminus) with ACTB; this interaction is direct and mediates the attachment to nuclear ribonucleoprotein complexes (PubMed:11687588). Interacts with ADAR isoform 1; this interaction occurs in a RNA-independent manner (PubMed:28355180). Interacts (via DRBM domains) with AGO2 (via middle region); this interaction promotes active RISC assembly by promoting the association of siRNA with AGO2 (PubMed:17531811, PubMed:23361462). Interacts (via RGG region) with AKAP8L (via N-terminus) (PubMed:11402034). Interacts with BRCA1 (via C-terminus); this interaction is direct and links BRCA1 to the RNA polymerase II holoenzyme (PubMed:9662397). Interacts (via N-terminus) with CREBBP; this interaction mediates association with RNA polymerase II holoenzyme and stimulates CREB-dependent transcriptional activation (PubMed:9323138). Interacts (via N-terminus) with EIF2AK2/PKR; this interaction is dependent upon the activation of the kinase (PubMed:19229320). Interacts (via DRBM domains) with DICER1 (PubMed:17531811). Interacts with H2AFX; this interaction is direct, requires phosphorylation of histone H2AFX on 'Ser-140' by PRKDC and promotes binding of DHX9 to transcriptionally stalled sites on chromosomal DNA in response to genotoxic stress (PubMed:15613478, PubMed:17498979). Interacts with HNRNPC; this interaction is direct, enhanced probably by their concomitant binding to RNA and mediates the attachment to actin filaments (PubMed:11687588). Interacts (via RGG region) with PRMT1 (PubMed:15084609). Interacts with IGF2BP1 (PubMed:17289661, PubMed:23640942). Interacts with IGF2BP2, IGF2BP3 (PubMed:23640942). Interacts (via DRBM domains) with ILF3; this interaction occurs in a RNA-independent manner (PubMed:12946349). Interacts with Importin alpha/Importin beta receptor (PubMed:16375961). Interacts with LARP6 (via C-terminus); this interaction occurs in a mRNA-independent manner (PubMed:22190748). Interacts (via N- and C-terminus) with LIN28A (via C-terminus); this interaction occurs in a RNA-independent manner (PubMed:21247876). Interacts with LMX1B (PubMed:23308148). Interacts (via helicase

NCBI AND UNIPROT INFORMATION

NCBI GI #	100913206
NCBI GeneID	1660
NCBI Accession #	NP_001348.2
NCBI GenBank Nucleotide #	NM_001357.4
UniProt Accession #	Q08211; Q05CI5; Q12803; Q32Q22; Q5VY62; Q6PD69; Q99556; B2RNV4
Molecular Weight	Observed: 140 kDa Predicted: 141 kDa
NCBI Official Full Name	ATP-dependent RNA helicase A
NCBI Official Synonym Full Names	DExH-box helicase 9
NCBI Official Symbol	DHX9
NCBI Official Synonym Symbols	LKP; RHA; DDX9; NDH2; NDH1
NCBI Protein Information	ATP-dependent RNA helicase A
UniProt Protein Name	ATP-dependent RNA helicase A
UniProt Gene Name	DHX9
UniProt Synonym Gene Names	DDX9ImportedManual assertion inferred from database entriesiHGNC:2750; LKP; NDH2; LKP1 PublicationManual assertion based on opinion iniRef.2; NDH I12 PublicationsManual assertion based on opinion iniRef.1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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