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DDX11 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP10453c

Specification

DDX11 Antibody (Center) - Product Information

Application	**FC, WB,E**
Primary Accession	Q96FC9
Other Accession	NP_689651.1, NP_004390.3
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**108313**
Antigen Region	**656-683**

DDX11 Antibody (Center) - Additional Information

Gene ID 1663

Other Names
Probable ATP-dependent RNA helicase DDX11, CHL1-related protein 1, hCHLR1, DEAD/H box protein 11, Keratinocyte growth factor-regulated gene 2 protein, KRG-2, DDX11, CHL1, CHLR1, KRG2

Target/Specificity
This DDX11 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 656-683 amino acids from the Central region of human DDX11.

Dilution
FC~~1:10~50
WB~~1:1000
E~~Use at an assay dependent concentration.

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
DDX11 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

DDX11 Antibody (Center) - Protein Information

Name DDX11 (HGNC:2736)

Function DNA-dependent ATPase and ATP-dependent DNA helicase that participates in various functions in genomic stability, including DNA replication, DNA repair and heterochromatin organization as well as in ribosomal RNA synthesis (PubMed:10648783, PubMed:21854770, PubMed:23797032, PubMed:26089203, PubMed:26503245). Its double-stranded DNA helicase activity requires either a minimal 5'-single-stranded tail length of approximately 15 nt (flap substrates) or 10 nt length single- stranded gapped DNA substrates of a partial duplex DNA structure for helicase loading and translocation along DNA in a 5' to 3' direction (PubMed:10648783, PubMed:18499658, PubMed:22102414). The helicase activity is capable of displacing duplex regions up to 100 bp, which can be extended up to 500 bp by the replication protein A (RPA) or the cohesion CTF18-replication factor C (Ctf18-RFC) complex activities (PubMed:18499658). Also shows ATPase- and helicase activities on substrates that mimic key DNA intermediates of replication, repair and homologous recombination reactions, including forked duplex, anti- parallel G-quadruplex and three-stranded D-loop DNA molecules (PubMed:22102414, PubMed:26503245). Plays a role in DNA double-strand break (DSB) repair at the DNA replication fork during DNA replication recovery from DNA damage (PubMed:23797032). Recruited with TIMELESS factor upon DNA-replication stress response at DNA replication fork to preserve replication fork progression, and hence ensure DNA replication fidelity (PubMed:26503245). Also cooperates with TIMELESS factor during DNA replication to regulate proper sister chromatid cohesion and mitotic chromosome segregation (PubMed:17105772, PubMed:18499658, PubMed:20124417, PubMed:23116066, PubMed:23797032). Stimulates 5'- single-stranded DNA flap endonuclease activity of FEN1 in an ATP- and helicase-independent manner; and hence it may contribute in Okazaki fragment processing at DNA replication fork during lagging strand DNA synthesis (PubMed:18499658). Its ability to function at DNA replication fork is modulated by its binding to long non-coding RNA (lncRNA) cohesion regulator non-coding RNA DDX11-AS1/CONCR, which is able to increase both DDX11 ATPase activity and binding to DNA replicating regions (PubMed:27477908). Also plays a role in heterochromatin organization (PubMed:21854770). Involved in rRNA transcription activation through binding to active hypomethylated rDNA gene loci by recruiting UBTF and the RNA polymerase Pol I transcriptional machinery (PubMed:26089203). Plays a role in embryonic development and prevention of aneuploidy (By similarity). Involved in melanoma cell proliferation and survival (PubMed:23116066). Associates with chromatin at DNA replication fork regions (PubMed:27477908). Binds to single- and double-stranded DNAs (PubMed:18499658, PubMed:22102414, PubMed:9013641).

Cellular Location
Nucleus. Nucleus, nucleolus. Cytoplasm, cytoskeleton, spindle pole. Midbody Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Note=During the early stages of mitosis, localizes to condensed chromatin and is released from the chromatin with progression to metaphase. Also localizes to the spindle poles throughout mitosis and at the midbody at later stages of mitosis (metaphase to telophase) (PubMed:17105772). In interphase, colocalizes with nucleolin in the nucleolus (PubMed:26089203)

Tissue Location
Expressed in melanoma cells. Not detected in epidermal melanocytes of normal skin (at protein level) (PubMed:23116066). Highly expressed in spleen, B-cells, thymus, testis, ovary, small intestine and pancreas (PubMed:9013641). Very low expression seen in brain (PubMed:9013641). Expressed in dividing cells and/or cells undergoing high levels of recombination (PubMed:9013641) No expression detected in cells signaled to terminally differentiate (PubMed:9013641). Expressed weakly in keratinocytes (PubMed:8798685)

DDX11 Antibody (Center) - Protocols

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

- Western Blot

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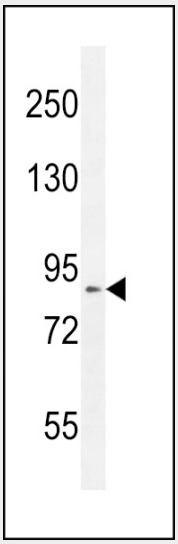
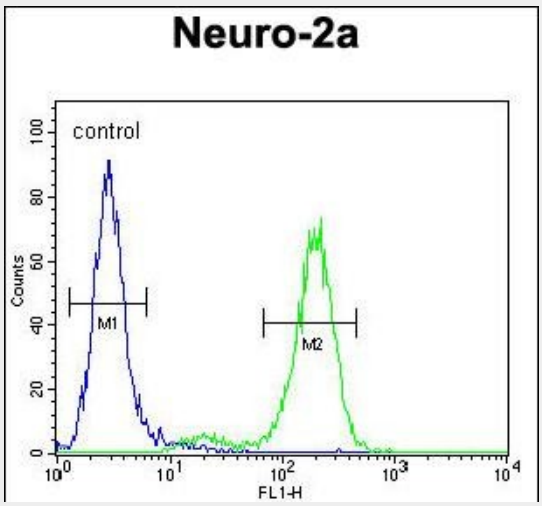
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

DDX11 Antibody (Center) - Images



DDX11 Antibody (Center) (Cat. #AP10453c) western blot analysis in mouse Neuro-2a cell line lysates (35ug/lane).This demonstrates the DDX11 antibody detected the DDX11 protein (arrow).



DDX11 Antibody (Center) (Cat. #AP10453c) flow cytometric analysis of Neuro-2a cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

DDX11 Antibody (Center) - Background

DEAD box proteins, characterized by the conserved motif Asp-Glu-Ala-Asp (DEAD), are putative RNA helicases. They are implicated in a number of cellular processes involving alteration of RNA secondary structure such as translation initiation, nuclear

and mitochondrial splicing, and ribosome and spliceosome assembly. Based on their distribution patterns, some members of this family are believed to be involved in embryogenesis, spermatogenesis, and cellular growth and division. DDX11 encodes a DEAD box protein, which is an enzyme that possesses both ATPase and DNA helicase activities. DDX11 is a homolog of the yeast CHL1 gene, and may function to maintain chromosome transmission fidelity and genome stability.

DDX11 Antibody (Center) - References

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