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DDX23 Rabbit pAb

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Catalog # AP54768

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q9BUQ8
Predicted	Human, Mouse, Rat, Chicken, Dog, Pig, Horse, Rabbit, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	95583
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human DDX23
Epitope Specificity	201-300/820
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nuclear
SIMILARITY	Contains 1 helicase ATP-binding domain. Contains 1 helicase C-terminal domain.
SUBUNIT	The phosphorylated form (by SRPK2) associates wth tri-snRNP (U4/U6-U5 tri-small nuclear ribonucleoproteins). Identified in the spliceosome C complex. Interacts with ERBB4.
Post-translational modifications	In vitro phosphorylated by CLK1 and U1 snRNP-associated protein kinase. Phosphorylated by SRPK2 and this phosphorylation is required for its association with the tri-snRNP (U4/U6-U5 tri-small nuclear ribonucleoproteins) and subsequent spliceosomal B complex formation. [SIMILARITY] Belongs to the DEAD box helicase family. DDX23/PRP28 subfamily.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	DDX23 encodes a member of the DEAD box protein family. 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. The protein encoded by this gene is a component of the U5 snRNP complex; it may facilitate conformational changes in the spliceosome during nuclear pre-mRNA splicing. An alternatively spliced transcript variant has been found for this gene, but its biological validity has not been determined.

Additional Information

Gene ID	9416
Other Names	Probable ATP-dependent RNA helicase DDX23, 3.6.4.13, 100 kDa U5 snRNP-specific protein, DEAD box protein 23, PRP28 homolog, U5-100kD, DDX23 (HGNC:17347)
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	DDX23 (HGNC:17347)
Function	Involved in pre-mRNA splicing and its phosphorylated form (by SRPK2) is required for spliceosomal B complex formation (PubMed:18425142). Independently of its spliceosome formation function, required for the suppression of incorrect R-loops formed during transcription; R-loops are composed of a DNA:RNA hybrid and the associated non-template single-stranded DNA (PubMed:28076779).
Cellular Location	Nucleus. Chromosome. Note=During transcription, accumulates at chromatin loci where unscheduled R-loops form and colocalizes with paused 'Ser-5'-phosphorylated POLR2A/RNA polymerase II and kinase SRPK2.

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