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DDX50 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP55473

Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q9BQ39
Reactivity	Rat, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	82565
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human DDX50
Epitope Specificity	101-200/737
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	Nucleus, nucleolus.
SIMILARITY	Belongs to the DEAD box helicase family. DDX21/DDX50 subfamily. Contains 1 helicase ATP-binding domain. Contains 1 helicase C-terminal domain.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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 DEAD box protein family are believed to be involved in embryogenesis, spermatogenesis, and cellular growth and division. This gene encodes a DEAD box enzyme that may be involved in ribosomal RNA synthesis or processing. This gene and DDX21, also called RH-II/GuA, have similar genomic structures and are in tandem orientation on chromosome 10, suggesting that the two genes arose by gene duplication in evolution. This gene has pseudogenes on chromosomes 2, 3 and 4. Alternative splicing of this gene generates multiple transcript variants, but the full length nature of all the other variants but one has not been defined. [provided by RefSeq, Jul 2008]

Additional Information

Gene ID	79009
Other Names	ATP-dependent RNA helicase DDX50, 3.6.4.13, DEAD box protein 50, Gu-beta, Nucleolar protein Gu2, DDX50
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000

Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
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	DDX50
Function	ATP-dependent RNA helicase that may play a role in various aspects of RNA metabolism including pre-mRNA splicing or ribosomal RNA production (PubMed:12027455). Also acts as a viral restriction factor and promotes the activation of the NF-kappa-B and IRF3 signaling pathways following its stimulation with viral RNA or infection with RNA and DNA viruses (PubMed:35215908). For instance, decreases vaccinia virus, herpes simplex virus, Zika virus or dengue virus replication during the early stage of infection (PubMed:28181036, PubMed:35215908). Mechanistically, acts via the adapter TICAM1 and independently of the DDX1-DDX21-DHX36 helicase complex to induce the production of interferon-beta (PubMed:35215908).
Cellular Location	Nucleus, nucleolus. Cytoplasm Note=Accumulates in the cytoplasm to activate signaling upstream of IRF3 during viral infection.
Tissue Location	Highest expression in skeletal muscle, liver, heart, placenta, and kidney.