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Anti-DDX39B Antibody

Catalog # AP96142

Product Information

Application	WB, IHC, FC, IF/IC
Primary Accession	Q13838
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Calculated MW	48991

Additional Information

Gene ID	7919
Other Names	BAT1; UAP56; Spliceosome RNA helicase DDX39B; 56 kDa U2AF65-associated protein; ATP-dependent RNA helicase p47; DEAD box protein UAP56; HLA-B-associated transcript 1 protein
Target/Specificity	Recombinant fragment of human DDX39B expressed in E. Coli
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 FC~~1:10~50 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

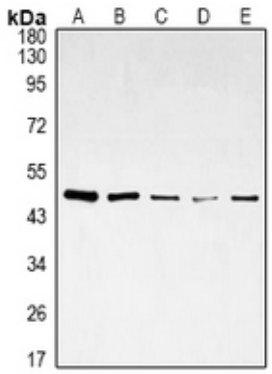
Name	DDX39B (HGNC:13917)
Synonyms	BAT1, UAP56
Function	Involved in nuclear export of spliced and unspliced mRNA (PubMed:15833825, PubMed:15998806, PubMed:17190602). Component of the TREX complex which is thought to couple mRNA transcription, processing and nuclear export, and specifically associates with spliced mRNA and not with unspliced pre-mRNA (PubMed:15833825, PubMed:15998806, PubMed:17190602). The TREX complex is recruited to spliced mRNAs by a transcription-independent mechanism, binds to mRNA upstream of the exon-junction complex (EJC) and is recruited in a splicing- and cap- dependent manner to a region near the 5' end of the mRNA where it functions in mRNA export to the cytoplasm via the TAP/NXF1 pathway (PubMed:15833825, PubMed:15998806, PubMed:17190602). The THOC1-THOC2- THOC3 core complex alone is sufficient to promote ATPase activity of DDX39B; in the complex THOC2 is the only component that directly interacts with DDX39B

(PubMed:33191911). Associates with SARNP/CIP29, which facilitates RNA binding of DDX39B and likely plays a role in mRNA export (PubMed:37578863). May undergo several rounds of ATP hydrolysis during assembly of TREX to drive subsequent loading of components such as ALYREF/THOC4 and CHTOP onto mRNA. Also associates with pre-mRNA independent of ALYREF/THOC4. Involved in the nuclear export of intronless mRNA; the ATP-bound form is proposed to recruit export adapter ALYREF/THOC4 to intronless mRNA; its ATPase activity is cooperatively stimulated by RNA and ALYREF/THOC4 and ATP hydrolysis is thought to trigger the dissociation from RNA to allow the association of ALYREF/THOC4 and the NXF1-NXT1 heterodimer. Involved in transcription elongation and genome stability.

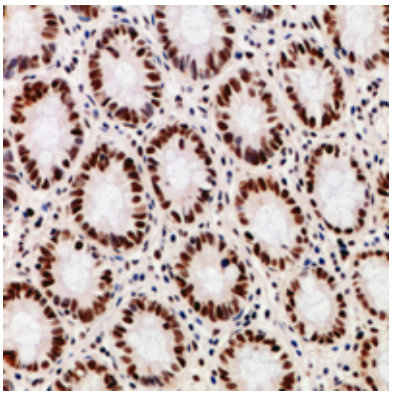
Cellular Location

Nucleus. Nucleus speckle. Cytoplasm. Note=Can translocate to the cytoplasm in the presence of MX1. TREX complex assembly seems to occur in regions surrounding nuclear speckles known as perispeckles

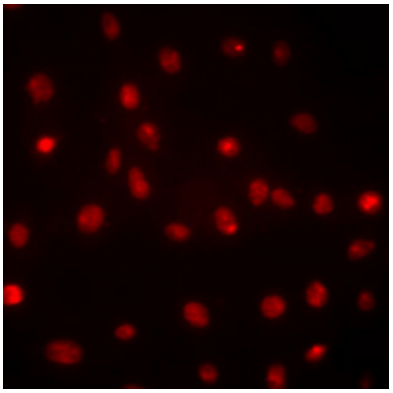
Images



Western blot analysis of DDX39B expression in HepG2 (A), K562 (B), Jurkat (C), NIH3T3 (D), MCF7 (E) whole cell lysates. (Predicted band size: 48 kD; Observed band size: 48 kD)



Immunohistochemical analysis of DDX39B staining in human colon cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of DDX39B staining in Hela cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark.

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