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BAT1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5244

Specification

BAT1 Antibody (C-term) - Product Information

Application	**WB, IHC-P, FC,E**
Primary Accession	Q13838
Other Accession	Q63413, Q29024, Q9Z1N5, Q27268, Q5ZHZ0, Q3T147, Q5U216, Q8VDW0, O00148
Reactivity	**Human**
Predicted	**Mouse, Rat, Bovine, Chicken, Drosophila, Pig**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**H=49;M=49;Rat=49 KDa**
Isotype	**Rabbit IgG**
Antigen Source	**HUMAN**

BAT1 Antibody (C-term) - Additional Information

Gene ID 7919

Antigen Region
351-380

Other Names
DDX39B; 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

Dilution
WB~~1:1000
IHC-P~~1:10~50
FC~~1:10~50

Target/Specificity
This BAT1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 351-380 amino acids from the C-terminal region of human BAT1.

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
BAT1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

BAT1 Antibody (C-term) - Protein Information

Name DDX39B (HGNC:13917)

Synonyms BAT1, UAP56

Function
Involved in nuclear export of spliced and unspliced mRNA. Assembling 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. TREX 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/NFX1 pathway. May undergo several rounds of ATP hydrolysis during assembly of TREX to drive subsequent loading of components such as ALYREF/THOC and CHTOP onto mRNA. Also associates with pre-mRNA independent of ALYREF/THOC4 and the THO complex. 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

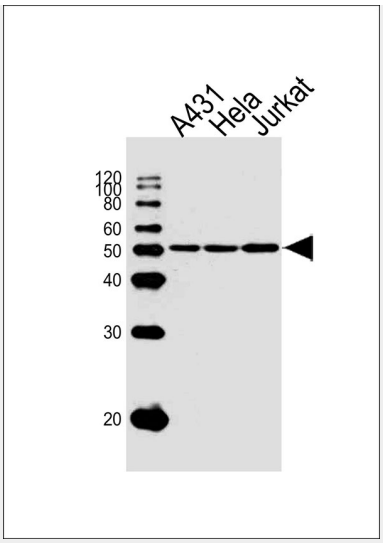
BAT1 Antibody (C-term) - Protocols

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

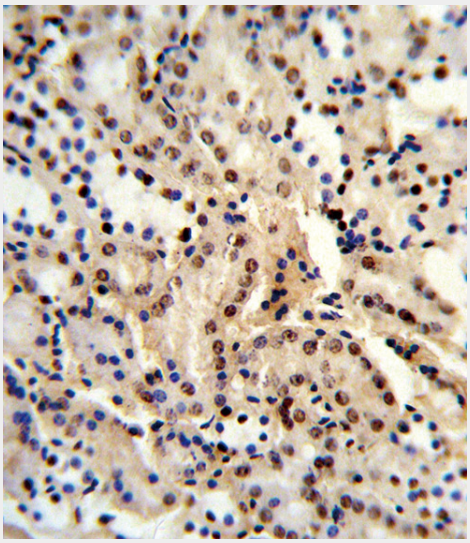
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

BAT1 Antibody (C-term) - Images

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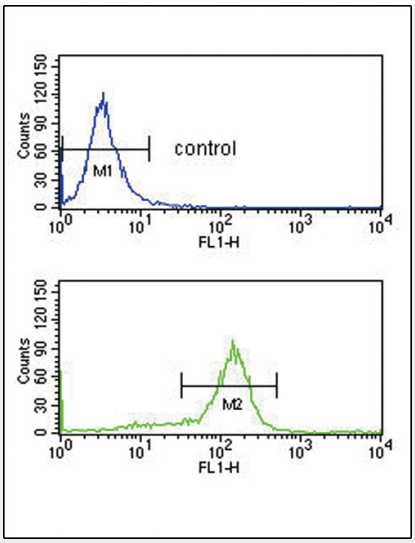


Western blot analysis of lysates from A431,Hela,Jurkat cell line (from left to right), using BAT1 Antibody (C-term)(Cat. #AW5244). AW5244 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.



Formalin-fixed and paraffin-embedded human kidney reacted with BAT1 Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

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BAT1 Antibody (C-term) (Cat. #AW5244) flow cytometry analysis of K562 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

BAT1 Antibody (C-term) - Background

Component of the THO subcomplex of the TREX complex. The TREX complex specifically associates with spliced mRNA and not with unspliced pre-mRNA. It 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. The recruitment occurs via an interaction between THOC4 and the cap-binding protein NCBP1. UAP56 functions as a bridge between THOC4 and the THO complex. The TREX complex is essential for the export of Kaposi's sarcoma-associated herpesvirus (KSHV) intronless mRNAs and infectious virus production. The recruitment of the TREX complex to the intronless viral mRNA occurs via an interaction between KSHV ORF57 protein and THOC4. Splice factor that is required for the first ATP-dependent step in spliceosome assembly and for the interaction of U2 snRNP with the branchpoint. It has both RNA-stimulated ATP binding/hydrolysis activity and ATP-dependent RNA unwinding activity. Even with the stimulation of RNA, the ATPase activity is weak. It can only hydrolyze ATP but not other NTPs. The RNA stimulation of ATPase activity does not have a strong preference for the sequence and length of the RNA. However, ssRNA stimulates the ATPase activity much more strongly than dsRNA. It can unwind 5' or 3' overhangs or blunt end RNA duplexes in vitro. The ATPase and helicase activities are not influenced by U2AF2 and THOC4.

BAT1 Antibody (C-term) - References

Choudhary C., et.al., Science 325:834-840(2009).
Boyne J.R., et.al., PLoS Pathog. 4:E1000194-E1000194(2008).