

# Anti-Aly Rabbit Monoclonal Antibody

Catalog # ABO15648

#### Specification

# Anti-Aly Rabbit Monoclonal Antibody - Product Information

ApplicationWB, IHC,Primary AccessionQ86V81HostRabbitIsotypeIgGReactivityRat, HumClonalityMonocloreFormatLiquidDescriptionAnti-Aly Babbit Monocloreal Antibody

WB, IHC, IF, ICC, IP, FC <u>O86V81</u> Rabbit IgG Rat, Human, Mouse Monoclonal Liquid

Anti-Aly Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, IP, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.

## Anti-Aly Rabbit Monoclonal Antibody - Additional Information

Gene ID 10189

**Other Names** THO complex subunit 4, Tho4, Ally of AML-1 and LEF-1, Aly/REF export factor, Transcriptional coactivator Aly/REF, bZIP-enhancing factor BEF, ALYREF, ALY, BEF, THOC4

Calculated MW 27 kDa KDa

Application Details WB 1:500-1:2000<br>IHC 1:50-1:200<br>ICC/IF 1:50-1:200<br>IP 1:40<br>FC 1:100

Contents

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen A synthesized peptide derived from human Aly

Purification Affinity-chromatography

Storage

Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

#### Anti-Aly Rabbit Monoclonal Antibody - Protein Information

Name ALYREF



Synonyms ALY, BEF, THOC4

### Function

Functions as an mRNA export adapter; component of the transcription/export (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:<a href="http://www.uniprot.org/citations/15833825" target=" blank">15833825</a>, PubMed:<a href="http://www.uniprot.org/citations/15998806" target=" blank">15998806</a>, PubMed:<a href="http://www.uniprot.org/citations/17190602" target="\_blank">17190602</a>). 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/NXF1 pathway (PubMed:<a href="http://www.uniprot.org/citations/15833825" target=" blank">15833825</a>, PubMed:<a href="http://www.uniprot.org/citations/15998806" target=" blank">15998806</a>, PubMed:<a href="http://www.uniprot.org/citations/17190602" target=" blank">17190602</a>). Involved in the nuclear export of intronless mRNA; proposed to be recruited to intronless mRNA by ATP-bound DDX39B (PubMed: <a href="http://www.uniprot.org/citations/17984224" target=" blank">17984224</a>). Plays a key role in mRNP recognition and mRNA packaging by bridging the mRNP-bound EJC and the TREX core complex (PubMed:<a href="http://www.uniprot.org/citations/37020021" target=" blank">37020021</a>). TREX recruitment occurs via an interaction between ALYREF/THOC4 and the cap- binding protein NCBP1 (PubMed: <a href="http://www.uniprot.org/citations/15833825" target=" blank">15833825</a>, PubMed:<a href="http://www.uniprot.org/citations/15998806" target="\_blank">15998806</a>, PubMed:<a href="http://www.uniprot.org/citations/17190602" target="\_blank">17190602</a>, PubMed:<a href="http://www.uniprot.org/citations/37020021" target=" blank">37020021</a>). Required for TREX complex assembly and for linking DDX39B to the cap-binding complex (CBC) (PubMed:<a href="http://www.uniprot.org/citations/15998806" target=" blank">15998806</a>, PubMed:<a href="http://www.uniprot.org/citations/17984224" target=" blank">17984224</a>, PubMed:<a href="http://www.uniprot.org/citations/37020021" target="\_blank">37020021</a>). Binds mRNA which is thought to be transferred to the NXF1-NXT1 heterodimer for export (TAP/NXF1 pathway) (PubMed:<a href="http://www.uniprot.org/citations/11675789" target=" blank">11675789</a>, PubMed: <a href="http://www.uniprot.org/citations/11707413" target=" blank">11707413</a>, PubMed:<a href="http://www.uniprot.org/citations/11979277" target=" blank">11979277</a>, PubMed:<a href="http://www.uniprot.org/citations/15833825" target=" blank">15833825</a>, PubMed:<a href="http://www.uniprot.org/citations/15998806" target=" blank">15998806</a>, PubMed:<a href="http://www.uniprot.org/citations/17190602" target="\_blank">17190602</a>, PubMed: <a href="http://www.uniprot.org/citations/18364396" target=" blank">18364396</a>, PubMed:<a href="http://www.uniprot.org/citations/22144908" target="\_blank">22144908</a>, PubMed:<a href="http://www.uniprot.org/citations/22893130" target="\_blank">22893130</a>, PubMed: <a href="http://www.uniprot.org/citations/23222130" target=" blank">23222130</a>, PubMed:<a href="http://www.uniprot.org/citations/25662211" target=" blank">25662211</a>). In conjunction with THOC5 functions in NXF1-NXT1 mediated nuclear export of HSP70 mRNA; both proteins enhance the RNA binding activity of NXF1 and are required for NXF1 localization to the nuclear rim (PubMed:<a href="http://www.uniprot.org/citations/19165146" target=" blank">19165146</a>). Involved in mRNA export of C5-methylcytosine (m5C)containing mRNAs: specifically recognizes and binds m5C mRNAs and mediates their nucleo-cytoplasmic shuttling (PubMed:<a href="http://www.uniprot.org/citations/28418038" target=" blank">28418038</a>). Acts as a chaperone and promotes the dimerization of transcription factors containing basic leucine zipper (bZIP) domains and thereby promotes transcriptional activation (PubMed: <a href="http://www.uniprot.org/citations/10488337" target=" blank">10488337</a>). Involved in transcription elongation and genome stability (PubMed:<a href="http://www.uniprot.org/citations/12438613" target="\_blank">12438613</a>).

#### **Cellular Location**

Nucleus. Nucleus speckle Cytoplasm Note=Colocalizes with the core EJC, NXF1 and DDX39B in the nucleus and nuclear speckles. Travels to the cytoplasm as part of the exon junction complex (EJC)



bound to mRNA (PubMed:19324961). Localizes to regions surrounding nuclear speckles known as perispeckles in which TREX complex assembly seems to occur (PubMed:23826332)

**Tissue Location** 

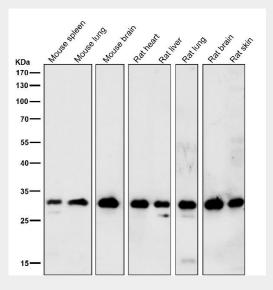
Expressed in a wide variety of cancer types.

### **Anti-Aly Rabbit Monoclonal Antibody - Protocols**

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

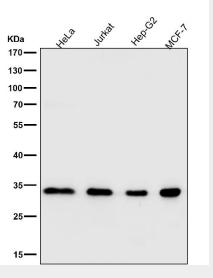
- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

## Anti-Aly Rabbit Monoclonal Antibody - Images

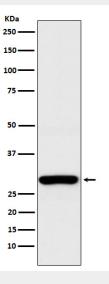


All lanes use the Antibody at 1:1W dilution for 1 hour at room temperature.





All lanes use the Antibody at 1:1W dilution for 1 hour at room temperature.



Western blot analysis of Aly expression in HEK293 cell lysate.