

# Anti-TIA1 Rabbit Monoclonal Antibody

Catalog # ABO13540

## Product Information

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|--------------------------|----------------------------------------------------------------------------------------------------------------------------|
| <b>Application</b>       | WB, IHC, IF, ICC, IP                                                                                                       |
| <b>Primary Accession</b> | <a href="#">P31483</a>                                                                                                     |
| <b>Host</b>              | Rabbit                                                                                                                     |
| <b>Isotype</b>           | Rabbit IgG                                                                                                                 |
| <b>Reactivity</b>        | Human, Mouse                                                                                                               |
| <b>Clonality</b>         | Monoclonal                                                                                                                 |
| <b>Format</b>            | Liquid                                                                                                                     |
| <b>Description</b>       | Anti-TIA1 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, IP applications. This antibody reacts with Human, Mouse. |

## Additional Information

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| <b>Gene ID</b>                  | 7072                                                                                                                                                                                                                      |
| <b>Other Names</b>              | Cytotoxic granule associated RNA binding protein TIA1<br>{ECO:0000312 HGNC:HGNC:11802}, Nucleolysin TIA-1 isoform p40,<br>RNA-binding protein TIA-1, T-cell-restricted intracellular antigen-1, TIA-1,<br>p40-TIA-1, TIA1 |
| <b>Calculated MW</b>            | 42963                                                                                                                                                                                                                     |
| <b>Application Details</b>      | WB 1:500-1:2000<br>IHC 1:50-1:200<br>ICC/IF 1:50-1:200<br>IP 1:50                                                                                                                                                         |
| <b>Subcellular Localization</b> | Cytoplasmic granule. Nucleus. Accumulates in cytoplasmic stress granules (SG) following cellular damage.                                                                                                                  |
| <b>Source</b>                   | Eukaryota                                                                                                                                                                                                                 |
| <b>Contents</b>                 | Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.                                                                                                       |
| <b>Clone Names</b>              | Clone: AAHD-20                                                                                                                                                                                                            |
| <b>Immunogen</b>                | A synthesized peptide derived from human TIA1                                                                                                                                                                             |
| <b>Purification</b>             | Affinity-chromatography                                                                                                                                                                                                   |
| <b>Storage</b>                  | 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.                                                                                |

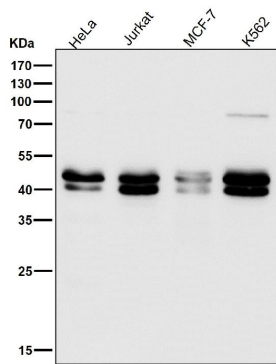
## Protein Information

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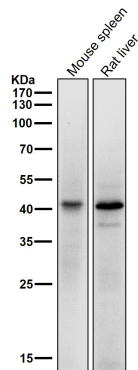
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| <b>Name</b>              | TIA1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Function</b>          | <p>RNA-binding protein involved in the regulation of alternative pre-RNA splicing and mRNA translation by binding to uridine-rich (U- rich) RNA sequences (PubMed:<a href="#">11106748</a>, PubMed:<a href="#">12486009</a>, PubMed:<a href="#">17488725</a>, PubMed:<a href="#">8576255</a>). Binds to U-rich sequences immediately downstream from a 5' splice sites in a uridine-rich small nuclear ribonucleoprotein (U snRNP)-dependent fashion, thereby modulating alternative pre-RNA splicing (PubMed:<a href="#">11106748</a>, PubMed:<a href="#">8576255</a>). Preferably binds to the U- rich IAS1 sequence in a U1 snRNP-dependent manner; this binding is optimal if a 5' splice site is adjacent to IAS1 (By similarity). Activates the use of heterologous 5' splice sites; the activation depends on the intron sequence downstream from the 5' splice site, with a preference for a downstream U-rich sequence (PubMed:<a href="#">11106748</a>). By interacting with SNRPC/U1-C, promotes recruitment and binding of spliceosomal U1 snRNP to 5' splice sites followed by U-rich sequences, thereby facilitating atypical 5' splice site recognition by U1 snRNP (PubMed:<a href="#">11106748</a>, PubMed:<a href="#">12486009</a>, PubMed:<a href="#">17488725</a>). Activates splicing of alternative exons with weak 5' splice sites followed by a U-rich stretch on its own pre-mRNA and on TIAR mRNA (By similarity). Acts as a modulator of alternative splicing for the apoptotic FAS receptor, thereby promoting apoptosis (PubMed:<a href="#">11106748</a>, PubMed:<a href="#">17488725</a>, PubMed:<a href="#">1934064</a>). Binds to the 5' splice site region of FAS intron 5 to promote accumulation of transcripts that include exon 6 at the expense of transcripts in which exon 6 is skipped, thereby leading to the transcription of a membrane-bound apoptotic FAS receptor, which promotes apoptosis (PubMed:<a href="#">11106748</a>, PubMed:<a href="#">17488725</a>, PubMed:<a href="#">1934064</a>). Binds to a conserved AU-rich cis element in COL2A1 intron 2 and modulates alternative splicing of COL2A1 exon 2 (PubMed:<a href="#">17580305</a>). Also binds to the equivalent AT-rich element in COL2A1 genomic DNA, and may thereby be involved in the regulation of transcription (PubMed:<a href="#">17580305</a>). Binds specifically to a polypyrimidine-rich controlling element (PCE) located between the weak 5' splice site and the intronic splicing silencer of CFTR mRNA to promote exon 9 inclusion, thereby antagonizing PTB1 and its role in exon skipping of CFTR exon 9 (PubMed:<a href="#">14966131</a>). Involved in the repression of mRNA translation by binding to AU-rich elements (AREs) located in mRNA 3' untranslated regions (3' UTRs), including target ARE-bearing mRNAs encoding TNF and PTGS2 (By similarity). Also participates in the cellular response to environmental stress, by acting downstream of the stress-induced phosphorylation of EIF2S1/EIF2A to promote the recruitment of untranslated mRNAs to cytoplasmic stress granules (SGs), leading to stress-induced translational arrest (PubMed:<a href="#">10613902</a>). Formation and recruitment to SGs is regulated by Zn(2+) (By similarity). Possesses nucleolytic activity against cytotoxic lymphocyte target cells (PubMed:<a href="#">1934064</a>).</p> |
| <b>Cellular Location</b> | <p>Nucleus. Cytoplasm Cytoplasm, Stress granule Note=Accumulates in cytoplasmic stress granules (SG) following cellular damage (PubMed:<a href="#">10613902</a>, PubMed:<a href="#">15371533</a>). Recruitment to SG is induced by Zn(2+) (By similarity). {ECO:0000250 UniProtKB:P52912, ECO:0000269 PubMed:<a href="#">10613902</a>, ECO:0000269 PubMed:<a href="#">15371533</a>}</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Tissue Location</b>   | <p>Expressed in heart, small intestine, kidney, liver, lung, skeletal muscle, testes, pancreas, and ovary (at protein level)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

## Images

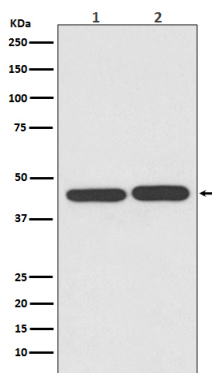
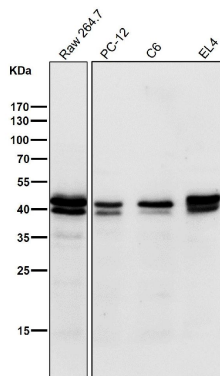
All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.



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



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



Western blot analysis of TIA1 expression in (1) Jurkat cell lysate; (2) NIH/3T3 cell lysate.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.