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TIA-1 Antibody (Internal)
Goat Polyclonal Antibody
Catalog # ALS13091

Specification

TIA-1 Antibody (Internal) - Product Information

Application	**WB, IHC-P, E**
Primary Accession	P31483
Reactivity	**Human, Mouse, Rat, Rabbit, Monkey, Chicken, Xenopus, Bovine, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Calculated MW	**43kDa KDa**
Dilution	**WB~~1:1000 IHC-P~~N/A E~~N/A**

TIA-1 Antibody (Internal) - Additional Information

Gene ID 7072

Other Names
Nucleolysin TIA-1 isoform p40, RNA-binding protein TIA-1, T-cell-restricted intracellular antigen-1, TIA-1, p40-TIA-1, TIA1

Target/Specificity
Human TIA1. This antibody is expected to recognise both reported isoforms (NP_071320.1 and NP_071505.1).

Reconstitution & Storage
Store at -20°C. Minimize freezing and thawing.

Precautions
TIA-1 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

TIA-1 Antibody (Internal) - Protein Information

Name TIA1

Function
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:11106748, PubMed:12486009, PubMed:17488725, PubMed:8576255). 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:11106748, PubMed:8576255). 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:11106748). 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:11106748, PubMed:12486009, PubMed:17488725). 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:11106748, PubMed:17488725, PubMed:1934064). 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:11106748, PubMed:17488725, PubMed:1934064). Binds to a conserved AU-rich cis element in COL2A1 intron 2 and modulates alternative splicing of COL2A1 exon 2 (PubMed:17580305). Also binds to the equivalent AT-rich element in COL2A1 genomic DNA, and may thereby be involved in the regulation of transcription (PubMed:17580305). 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:14966131). 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:10613902). Formation and recruitment to SGs is regulated by Zn(2+) (By similarity). Possesses nucleolytic activity against cytotoxic lymphocyte target cells (PubMed:1934064).

Cellular Location
Nucleus. Cytoplasm Cytoplasm, Stress granule Note=Accumulates in cytoplasmic stress granules (SG) following cellular damage (PubMed:10613902, PubMed:15371533). Recruitment to SG is induced by Zn(2+) (By similarity). {ECO:0000250|UniProtKB:P52912, ECO:0000269|PubMed:10613902, ECO:0000269|PubMed:15371533}

Tissue Location
Expressed in heart, small intestine, kidney, liver, lung, skeletal muscle, testes, pancreas, and ovary (at protein level)

TIA-1 Antibody (Internal) - Protocols

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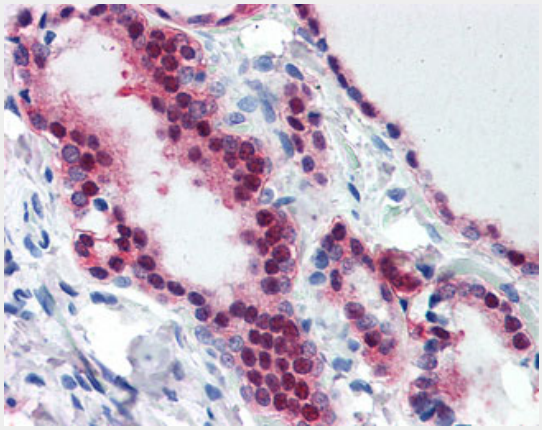
Provided below are standard protocols that you may find useful for product applications.

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

TIA-1 Antibody (Internal) - Images



Anti-TIA1 antibody IHC of human thyroid.

TIA-1 Antibody (Internal) - Background

Involved in alternative pre-RNA splicing and regulation of mRNA translation by binding to AU-rich elements (AREs) located in mRNA 3' untranslated regions (3' UTRs). Possesses nucleolytic activity against cytotoxic lymphocyte target cells. May be involved in apoptosis.

TIA-1 Antibody (Internal) - References

Tian Q.,et al.Cell 67:629-639(1991).
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Gilks N.,et al.Mol. Biol. Cell 15:5383-5398(2004).