For Research Use Only

TIA1 Monoclonal antibody

Catalog Number:68486-1-Ig

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Basic Information

Catalog Number:
68486-1-Ig

Size:
150ul , Concentration: 1000 ug/ml by Nanodrop;

Source:
Mouse

Isotype:
IgG1

Immunogen Catalog Number:
AG2778

GenBank Accession Number:
BC015944

GeneID (NCBI):
7072

UNIPROT ID:
P31483

Full Name:
TIA1 cytotoxic granule-associated RNA binding protein

Calculated MW:
214 aa, 24 kDa, 43 kDa

Observed MW:
38-40 kDa

Purification Method:
Protein G purification

CloneNo.:
2C11F4

Recommended Dilutions:
WB 1:5000-1:50000
IHC 1:250-1:1000

Applications

Tested Applications:
WB, IHC, ELISA

Species Specificity:
human, mouse, rat

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : HUVEC cells, hTERT-RPE1 cells, HepG2 cells, COLO 320 cells, MOLT-4 cells, Jurkat cells, K-562 cells, HSC-T6 cells, NIH/3T3 cells

IHC : mouse liver tissue, human urothelial carcinoma tissue

Background Information

TIA1, also named as p40-TIA-1, is 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). It possesses nucleolytic activity against cytotoxic lymphocyte target cells. TIA1 may be involved in apoptosis. Two isoforms of this protein exist - 41kDa and 42kDa. one of these was a missense variant (P362L) in TIA1. Similar to the ALS-related disease proteins TDP-43, hnRNPA1, and FUS, TIA1 is an RNA-binding protein containing a prionlike LCD and assembles into membrane-less organelles, including SGs. Postmortem neuropathology of five TIA1 mutations carriers showed a consistent pathological signature with numerous round, hyaline, TAR DNA-binding protein 43 (TDP-43)-positive inclusions.TIA1mutations significantly increased the propensity of TIA1 protein to undergo phase transition. In live cells,TIA1mutations delayed stress granule (SG) disassembly and promoted the accumulation of non-dynamic SGs that harbored TDP-43.

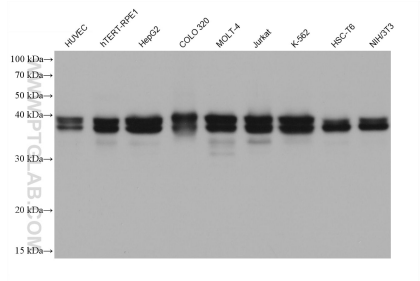
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

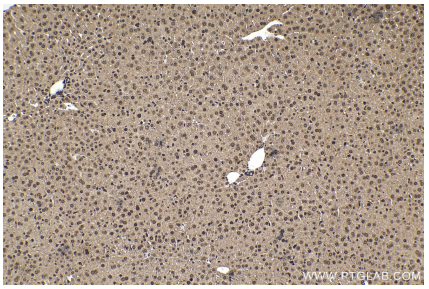
***** 20ul sizes contain 0.1% BSA**

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

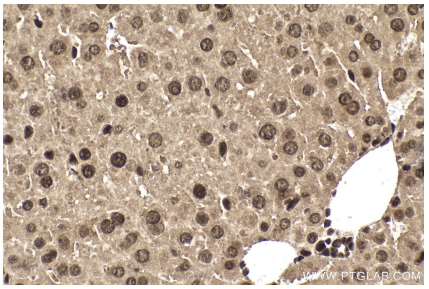
Selected Validation Data



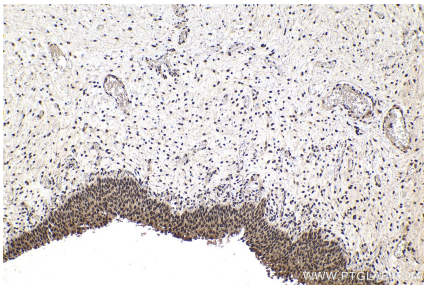
Various lysates were subjected to SDS PAGE followed by western blot with 68486-1-Ig (TIA1 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours.



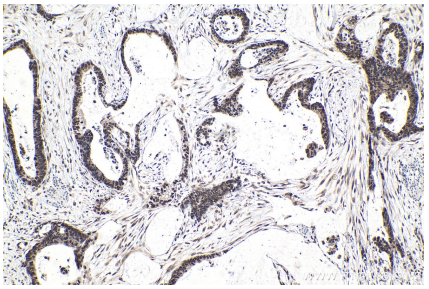
Immunohistochemical analysis of paraffin-embedded mouse liver tissue slide using 68486-1-Ig (TIA1 antibody) at dilution of 1:500 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



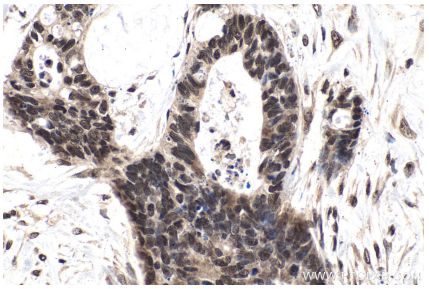
Immunohistochemical analysis of paraffin-embedded mouse liver tissue slide using 68486-1-Ig (TIA1 antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human urothelial carcinoma tissue slide using 68486-1-Ig (TIA1 antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human urothelial carcinoma tissue slide using 68486-1-Ig (TIA1 antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human urothelial carcinoma tissue slide using 68486-1-Ig (TIA1 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).