

For Research Use Only

# TIA1 Recombinant antibody

Catalog Number: 82672-1-RR

Featured Product



## Basic Information

### Catalog Number:

82672-1-RR

### Size:

100ul, Concentration: 1000 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### 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 A purification

### CloneNo.:

3N22

### Recommended Dilutions:

WB: 1:5000-1:50000

IF/ICC: 1:500-1:2000

## Applications

### Tested Applications:

WB, IF/ICC, ELISA

### Species Specificity:

human, mouse, rat

### Positive Controls:

WB : Caco-2 cells, Jurkat cells, COLO 320 cells, K-562 cells, MOLT-4 cells, NIH/3T3 cells, HSC-T6 cells

IF/ICC : sodium arsenite treated HeLa cells,

## 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, hnRNP A1, 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. TIA1 mutations significantly increased the propensity of TIA1 protein to undergo phase transition. In live cells, TIA1 mutations 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, pH7.3

Aliquoting is unnecessary for -20°C storage

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

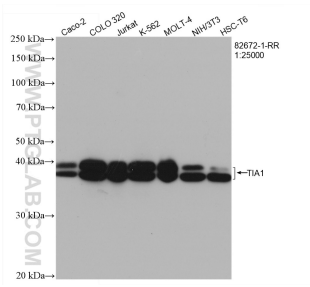
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

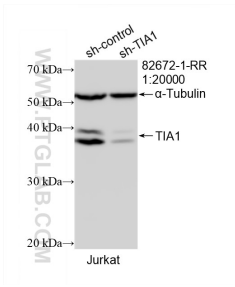
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

Selected Validation Data

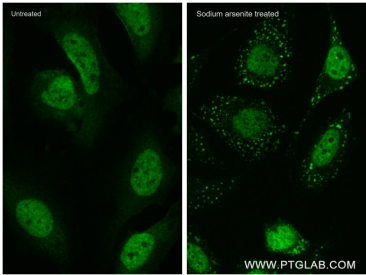


Various lysates were subjected to SDS PAGE followed by western blot with 82672-1-RR (TIA1 antibody) at dilution of 1:25000 incubated at room temperature for 1.5 hours.

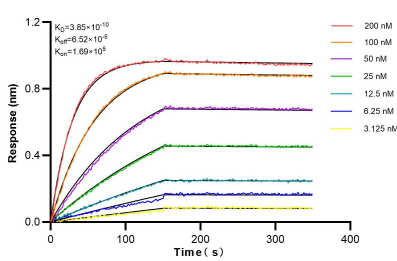


WB result of TIA1 antibody (82672-1-RR; 1:20000; incubated at room temperature for 1.5 hours) with sh-Control and sh-TIA1 transfected Jurkat cells.

Immunofluorescent analysis of (4% PFA) fixed sodium arsenite treated HeLa cells using TIA1 antibody (82672-1-RR, Clone: 3N22 ) at dilution of 1:1000 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-phalloidin (red).



Immunofluorescent analysis of (4% PFA) fixed sodium arsenite treated HeLa cells using TIA1 antibody (82672-1-RR, Clone: 3N22 ) at dilution of 1:1000 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Biolayer interferometry (BLI) kinetic assays of 82672-1-RR against Human TIA1 were performed. The affinity constant is 0.385 nM.