## For Research Use Only

## TIA1 Recombinant antibody, PBS Only



**Purification Method:** 

Protein A purification

CloneNo.:

3N22

Catalog Number:82672-1-PBS

**Basic Information** 

Catalog Number:

82672-1-PBS

Size: 1mg/ml Source:

Rabbit Isotype: IgG

Immunogen Catalog Number:

immunogen Catatog Number:

AG2778

214

Observed MW: 38-40 kDa

P31483
Full Name:
TIA1 cytotoxic granule-associated
RNA binding protein

BC015944

7072

GeneID (NCBI):

**UNIPROT ID:** 

Calculated MW: 214 aa, 24 kDa, 43 kDa

GenBank Accession Number:

**Applications** 

Tested Applications: WB, IF, Indirect ELISA Species Specificity: Human, mouse, rat

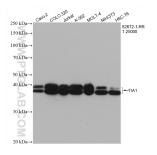
## **Background Information**

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.

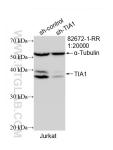
Storage

Storage: Store at -80°C. Storage Buffer: PBS Only

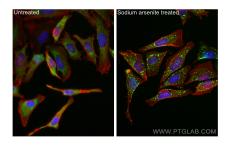
## **Selected Validation Data**



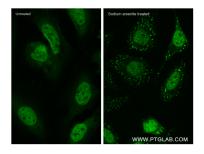
Various lysates were subjected to SDS PAGE followed by western blot with 82672-1-RR (TIA1 antibody) at dilution of 1:25000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 82672-1-PBS in a different storage buffer formulation.



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. This data was developed using the same antibody clone with 82672-1-PBS in a different storage buffer formulation.



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). This data was developed using the same antibody clone with 82672-1-PBS in a different storage buffer formulation.



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 1gG(H+L). This data was developed using the same antibody clone with 82672-1-PBS in a different storage buffer formulation.