

For Research Use Only

# CoraLite®594-conjugated TIA1 Polyclonal antibody



Catalog Number:CL594-12133

Featured Product

## Basic Information

**Catalog Number:**

CL594-12133

**Size:**

1000 µg/ml

**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:**

40 kDa

**Purification Method:**

Antigen affinity purification

**Recommended Dilutions:**

IF 1:50-1:500

**Excitation/Emission maxima**

**wavelengths:**

588 nm / 604 nm

## Applications

**Tested Applications:**

IF/ICC

**Species Specificity:**

human, mouse, rat

**Positive Controls:**

IF : L02 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, 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. 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. Moreover, TDP-43 in SGs became less mobile and insoluble.

## Storage

**Storage:**

Store at -20°C. Avoid exposure to light.

**Storage Buffer:**

PBS with 50% Glycerol, 0.05% Proclin300, 0.5% BSA, pH 7.3.

Aliquoting is unnecessary for -20°C storage

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

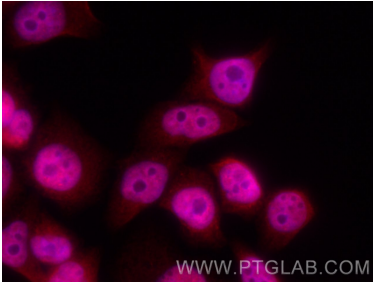
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This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

## Selected Validation Data



Immunofluorescent analysis of (4% PFA) fixed L02 cells using Coralite® 594 TIA1 antibody (CL594-12133) at dilution of 1:200.