

For Research Use Only

# CoraLite® Plus 488-conjugated TIA1 Recombinant antibody

Catalog Number: CL488-82672



## Basic Information

<b>Catalog Number:</b> CL488-82672	<b>GenBank Accession Number:</b> BC015944	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ul , Concentration: 1000 ug/ml by Nanodrop;	<b>GeneID (NCBI):</b> 7072	<b>CloneNo.:</b> 3N22
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> P31483	<b>Recommended Dilutions:</b> IF/ICC 1:200-1:800
<b>Isotype:</b> IgG	<b>Full Name:</b> TIA1 cytotoxic granule-associated RNA binding protein	<b>Excitation/Emission maxima wavelengths:</b> 493 nm / 522 nm
<b>Immunogen Catalog Number:</b> AG2778	<b>Calculated MW:</b> 214 aa, 24 kDa, 43 kDa	
	<b>Observed MW:</b> 38-40 kDa	

## Applications

<b>Tested Applications:</b> IF/ICC	<b>Positive Controls:</b> IF/ICC : sodium arsenite treated HeLa cells,
<b>Species Specificity:</b> 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, 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.

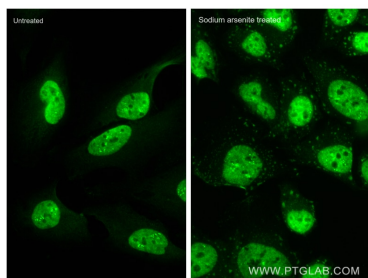
## Storage

**Storage:**  
Store at -20°C. Avoid exposure to light. Stable for one year after shipment.  
**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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## Selected Validation Data



Immunofluorescent analysis of (4% PFA) fixed sodium arsenite treated HeLa cells using Coralite® Plus 488 TIA1 antibody (CL488-82672, Clone: 3N22 ) at dilution of 1:400.