

For Research Use Only

# TDP-43 (for IF/FC) Recombinant antibody



Catalog Number: 80002-1-RR

Featured Product

## Basic Information

**Catalog Number:**

80002-1-RR

**Size:**

100ul , Concentration: 250 µg/ml by Bradford method using BSA as the standard;

**Source:**

Rabbit

**Isotype:**

IgG

**Immunogen Catalog Number:**

AG1231

**GenBank Accession Number:**

BC001487

**GeneID (NCBI):**

23435

**Full Name:**

TAR DNA binding protein

**Calculated MW:**

43 kDa

**Observed MW:**

43 kDa

**Purification Method:**

Protein A purification

**CloneNo.:**

16A22

**Recommended Dilutions:**

IF 1:50-1:500

## Applications

**Tested Applications:**

FC, IF, ELISA

**Species Specificity:**

Human, mouse, rat

**Positive Controls:**

IF : SH-SY5Y cells, A431 cells, rat brain tissue, HepG2 cells

## Background Information

The TARDBP gene encodes the TDP-43 protein, initially found to repress HIV-1 transcription by binding TAR DNA. TDP-43 has since been shown to bind RNA as well as DNA, and have multiple functions in transcriptional repression, translational regulation and pre-mRNA splicing. For instance, it is reported to regulate alternate splicing of the CTFR gene. In 2006 Neumann et al. found that hyperphosphorylated, ubiquitinated and/or cleaved forms of TDP-43, collectively known as pathological TDP-43, play a major role in the disease mechanisms of ubiquitin-positive, tau- and alpha-synuclein-negative frontotemporal dementia (FTLD-U) and in amyotrophic lateral sclerosis (ALS). Proteintech's 80002-1-RR is a rabbit recombinant TDP-43 antibody recognizing N-terminal TDP-43. It recognizes the intact 43 kDa protein as well as all posttranslationally modified and truncated forms in multiple applications. Various forms of TDP-43 exist, including 18-35 kDa of cleaved C-terminal fragments, 45-50 kDa phospho-protein, 55 kDa glycosylated form, 75 kDa hyperphosphorylated form, and 90-300 kDa cross-linked form. (PMID: 17023659, 19823856, 21666678, 22193176) Recently TDP-43 has been reported to be overexpressed in triple negative breast cancer (TNBC) and it may be a potential target for TNBC diagnosis and drug design. (PMID: 29581274)

80002-1-RR antibody works well in IF experiment.

## Storage

**Storage:**

Store at -20°C.

**Storage Buffer:**

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

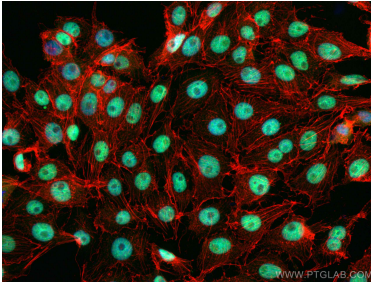
For technical support and original validation data for this product please contact:

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

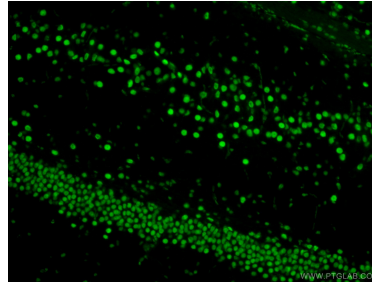
E: proteintech@ptglab.com  
W: ptglab.com

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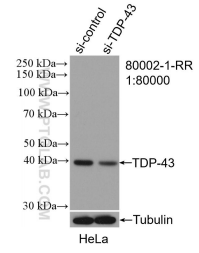
## Selected Validation Data



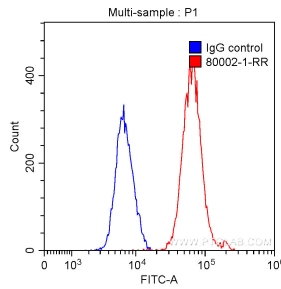
Immunofluorescent analysis of (4% PFA) fixed SH-SY5Y cells using TDP-43 (for IF/FC) antibody (80002-1-RR, Clone: 16A22) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L). Red: staining with CoraLite555-Phalloidin.



Immunofluorescent analysis of (4% PFA) fixed rat brain tissue using 80002-1-RR (TDP-43 antibody) at dilution of 1:200 and CoraLite488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



WB result of TDP-43 (for IF/FC) antibody (80002-1-RR; 1:80000; incubated at room temperature for 1.5 hours) with sh-Control and sh-TDP-43 (for IF/FC) transfected HeLa cells.



1X10<sup>6</sup> HeLa cells were intracellularly stained with 0.20ug Anti-Human TDP-43 (80002-1-RR, Clone:16A22) (red) or 0.20 ug control antibody (blue) and CoraLite488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) with dilution 1:1000. Fixed with 90% MeOH.