

TDP-43 (C-terminal) Polyclonal antibody

Catalog Number: 12892-1-AP

Featured Product

262 Publications

Basic Information

Catalog Number:

12892-1-AP

Concentration:

650 ug/ml

Source:

Rabbit

Isotype:

IgG

GenBank Accession Number:

BC001487

GeneID (NCBI):

23435

UNIPROT ID:

Q13148

Full Name:

TAR DNA binding protein

Calculated MW:

43 kDa

Observed MW:

43-45 kDa, 35 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB: 1:5000-1:50000

IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:1000-1:4000

IF-Fro: 1:50-1:500

IF/ICC: 1:2000-1:8000

FC (Intra): 0.40 ug per 10⁶ cells in a 100 µl suspension

Applications

Tested Applications:

WB, IHC, IF/ICC, IF-Fro, FC (Intra), IP, ELISA

Cited Applications:

WB, IHC, IF, IP, CoIP, ChIP, RIP

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, rat, monkey, chicken, zebrafish, drosophila

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB: A549 cells, C6 cells, mouse brain tissue, Calu-1 cells, HeLa cells, K-562 cells

IP: mouse brain tissue,

IHC: rat brain tissue, human gliomas tissue, mouse brain tissue

IF-Fro: mouse brain tissue,

IF/ICC: HeLa cells, Neuro-2a cells

FC (Intra): HeLa cells,

Background Information

Transactivation response (TAR), DNA-binding protein of 43 kDa (also known as TARDBP or TDP-43), was first isolated as a transcriptional inactivator binding to the TAR DNA element of the HIV-1 virus. Neumann et al. (2006) found that a hyperphosphorylated, ubiquitinated, and cleaved form of TARDBP, known as pathologic TDP-43, is the major component of the tau-negative and ubiquitin-positive inclusions that characterize amyotrophic lateral sclerosis (ALS) and the most common pathological subtype of frontotemporal lobar degeneration (FTLD-U). 12892-1-AP is a rabbit polyclonal antibody raised against the C-terminal amino acids of human TDP-43. This antibody recognizes the cleavage product of 20-30 kDa in addition to the native and phosphorylated forms of TDP-43. Immunohistochemical analyses of TDP-43 using this antibody detect both normal diffuse nuclear staining and insoluble inclusions in pathologic tissues. Various forms of TDP-43 exist, including 18-35 kDa of cleaved C-terminal fragments, 45-50 kDa phosphoprotein, 55 kDa glycosylated form, 75 kDa hyperphosphorylated form, and 90-300 kDa cross-linked form. (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. (29581274)

Notable Publications

Author	Pubmed ID	Journal	Application
Helena Gossye	36171642	Brain	IHC
Y Liu	25270903	Neuroscience	
Wenrui Huang	34580300	Nat Commun	IHC

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

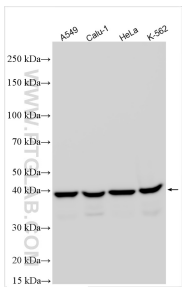
PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

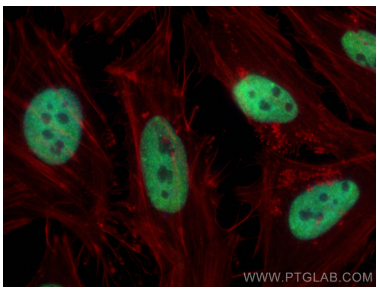
Selected Validation Data



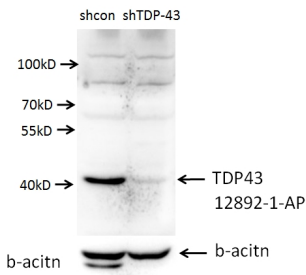
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 12892-1-AP (TDP-43 (C-terminal) antibody at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



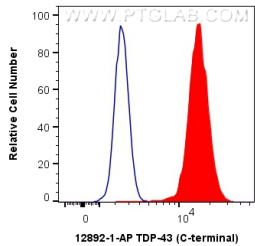
Various lysates were subjected to SDS PAGE followed by western blot with 12892-1-AP (TDP-43 (C-terminal) antibody) at dilution of 1:30000 incubated at room temperature for 1.5 hours.



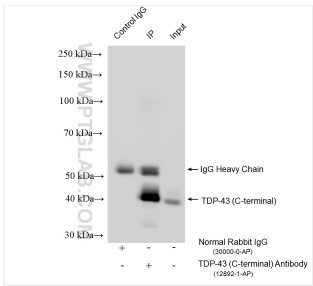
Immunofluorescent analysis of (4% PFA) fixed HeLa cells using TDP-43 (C-terminal) antibody (12892-1-AP) at dilution of 1:4000 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



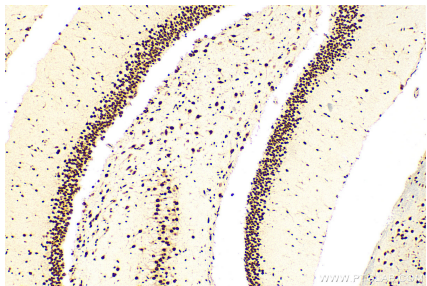
A549 cells (shcontrol and shRNA of TDP43) were subjected to SDS PAGE followed by western blot with 12892-1-AP (TDP43 antibody) at dilution of 1:1000.



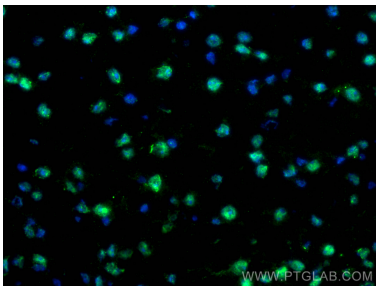
1X10⁶ HeLa cells were intracellularly stained with 0.4 ug Anti-Human TDP-43 (C-terminal) (12892-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Isotype Control. Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).



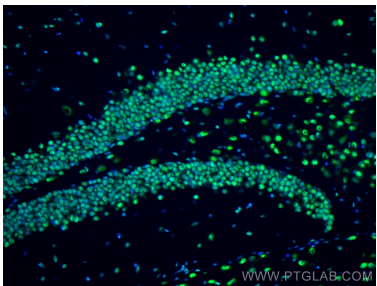
IP result of anti-TDP-43 (C-terminal) (IP:12892-1-AP, 4ug; Detection:12892-1-AP 1:20000) with mouse brain tissue lysate 2120 ug.



Immunohistochemical analysis of paraffin-embedded rat brain tissue slide using 12892-1-AP (TDP-43 (C-terminal) antibody at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of unfixed frozen OCT-embedded mouse brain tissue using TDP-43 (C-terminal) antibody (12892-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2).



Immunofluorescent analysis of (4% PFA) fixed frozen OCT-embedded mouse brain tissue using TDP-43 (C-terminal) antibody (12892-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2).