

TDP-43 Polyclonal antibody

Catalog Number: 10782-2-AP

Featured Product

1270 Publications

Basic Information

Catalog Number: 10782-2-AP	GenBank Accession Number: BC001487	Purification Method: Antigen affinity purification
Size: 150ul , Concentration: 400 µg/ml by Nanodrop and 307 µg/ml by Bradford method using BSA as the standard;	GeneID (NCBI): 23435	Recommended Dilutions: WB 1:2000-1:10000 IHC 1:1000-1:4000 IF 1:50-1:500
Source: Rabbit	Full Name: TAR DNA binding protein	
Isotype: IgG	Calculated MW: 43 kDa	
	Observed MW: 43 kDa	

Applications

Tested Applications:

FC, IF, IHC, WB, ELISA

Cited Applications:

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

Species Specificity:

human, mouse, rat, zebrafish, kak

Cited Species:

Caenorhabditis elegans, canine, chicken, Drosophila, hamster, horse, human, monkey, mouse, pig

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 : SH-SY5Y cells, HeLa cells, K-562 cells, C2C12 cells, Neuro-2a cells

IHC : mouse brain tissue, human brain tissue, human brain (FTLD-U) tissue, human gliomas tissue, human pancreas tissue, rat brain tissue

IF : HeLa cells, SH-SY5Y cells

Background Information

The TARDBP gene encodes the TDP-43 protein, initially found to repress HIV-1 transcription by binding TAR RNA. 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 10782-2-AP antibody is a rabbit polyclonal 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. (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
Kasey L Jackson	26445725	Mol Ther Methods Clin Dev	WB
Jinwal Umesh K UK	19793966	J Neurosci	WB
Rudolf Hergesheimer	33003404	Cells	

Storage

Storage:

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

Storage Buffer:

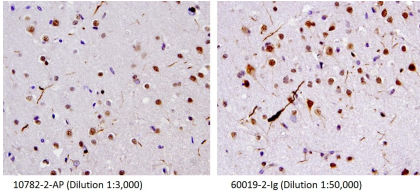
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

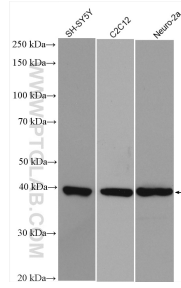
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

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

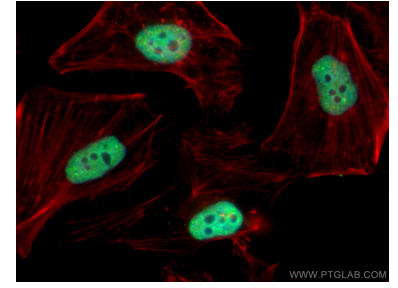
Selected Validation Data



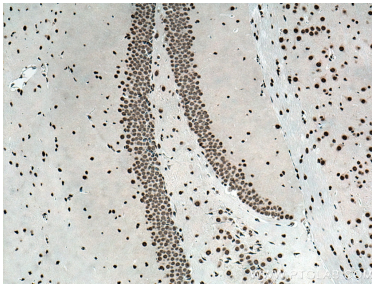
40X of FTLD-U case stained by 10782-2-AP and 60019-2-Ig, showing dystrophic neurites. (Figs were provided by Linda K. Kwong).



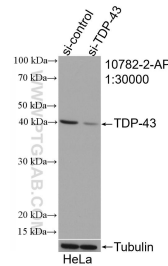
Various lysates were subjected to SDS PAGE followed by western blot with 10782-2-AP (TDP-43 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



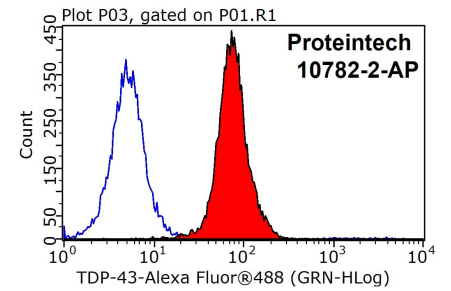
Immunofluorescent analysis of (4% PFA) fixed HeLa cells using TDP-43 antibody (10782-2-AP) at dilution of 1:200 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 10782-2-AP (TDP-43 antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



WB result of TDP-43 antibody (10782-2-AP; 1:30000; incubated at room temperature for 1.5 hours) with sh-Control and sh-TDP-43 transfected HeLa cells.



1X10⁶ HeLa cells were stained with 0.2ug TDP-43 antibody (10782-2-AP, red) and control antibody (blue). Fixed with 90% MeOH blocked with 3% BSA (30 min). Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) with dilution 1:1000.