

# TDP-43 (human specific) Monoclonal antibody

Catalog Number: 60019-2-Ig

Featured Product

98 Publications

## Basic Information

<b>Catalog Number:</b> 60019-2-Ig	<b>GenBank Accession Number:</b> BC001487	<b>Purification Method:</b> Protein G purification
<b>Size:</b> 150ul, Concentration: 1067 µg/ml by Bradford method using BSA as the standard;	<b>GeneID (NCBI):</b> 23435	<b>CloneNo.:</b> 6H6E12
<b>Source:</b> Mouse	<b>Full Name:</b> TAR DNA binding protein	<b>Recommended Dilutions:</b> WB 1:5000-1:50000 IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate IHC 1:5000-1:20000
<b>Isotype:</b> IgG1	<b>Calculated MW:</b> 43 kDa <b>Observed MW:</b> 43 kDa	

## Applications

**Tested Applications:**  
FC, IHC, IP, WB, ELISA

**Cited Applications:**  
CoIP, IHC, IP, WB

**Species Specificity:**  
human

**Cited Species:**  
human, yeast cell

**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:** LNCaP cells, HeLa cells, HEK-293 cells, HepG2 cells, Jurkat cells, K-562 cells

**IP:** K-562 cells,

**IHC:** human gliomas tissue, human pancreas cancer tissue, human brain(FTLD-U) tissue

## 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). 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). 60019-2-Ig is a mouse monoclonal antibody recognizing 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. Notably this antibody only recognizes human TDP-43 but not reacts with mouse or rat TDP-43.

## Notable Publications

Author	Pubmed ID	Journal	Application
Nikita Fernandes	32992901	Biomolecules	
Deng Han-Xiang HX	21857683	Nature	IHC
Lynda Nwabuobi	31745474	Mov Disord Clin Pract	IHC

## Storage

**Storage:**

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

**Storage Buffer:**

PBS with 0.1% sodium azide and 50% glycerol pH 7.3.

**Aliquoting is unnecessary for -20°C storage**

\*\*\* 20ul sizes contain 0.1% BSA

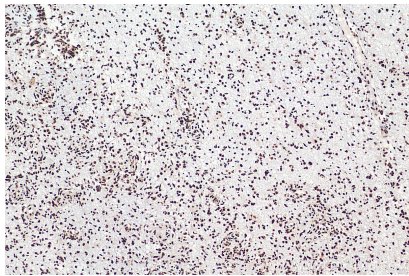
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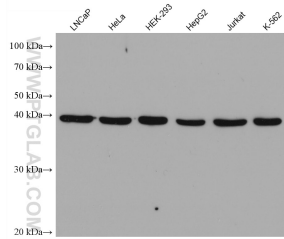
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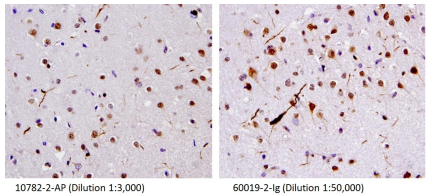
Selected Validation Data



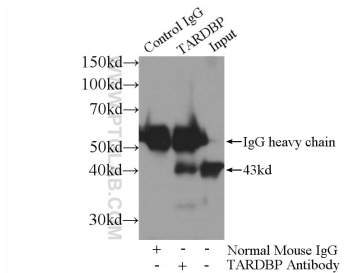
Immunohistochemical analysis of paraffin-embedded human gliomas tissue slide using 60019-2-Ig (TDP-43 (human specific) antibody) at dilution of 1:10000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



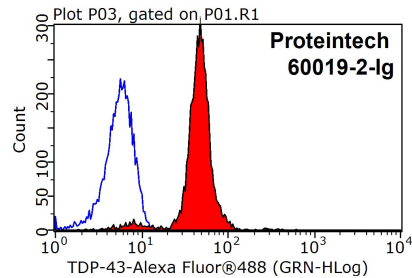
Various lysates were subjected to SDS PAGE followed by western blot with 60019-2-Ig (TDP-43 (human specific) antibody) at dilution of 1:100000 incubated at room temperature for 1.5 hours.



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



IP Result of anti-TDP-43 (human specific) (IP:60019-2-Ig, 5ug; Detection:60019-2-Ig 1:1000) with K-562 cells lysate 1720ug.



1X10<sup>6</sup> MCF-7 cells were stained with 0.2ug TDP-43 (human specific) antibody (60019-2-Ig, red) and control antibody (blue). Fixed with 90% MeOH blocked with 3% BSA (30 min). Alexa Fluor 488-conjugated AffiniPure Goat Anti-Mouse IgG(H+L) with dilution 1:1500.