For Research Use Only

TDP-43 (human specific) Monoclonal antibody

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Catalog Number:60019-2-Ig 63 Publications

Basic Information

Catalog Number:
60019-2-Ig

Size:
150UL , Concentration: 1067 μg/ml by Bradford method using BSA as the standard;

Source:
Mouse

Isotype:
IgG1

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.:
6H6E12

Recommended Dilutions:
WB 1:5000-1:100000
IP 0.5-4.0 ug for IP and 1:500-1:2000 for WB
IHC 1:50-1:50000

Applications

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

Cited Applications:
CoIP, IHC, IP, WB

Species Specificity:
human

Cited Species:
human

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 : MCF-7 cells,

IP : K-562 cells,

IHC : human brain(FTLD-U) tissue, human pancreas cancer tissue, human gliomas 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	IF
Deng Han-Xiang HX	21857683	Nature	IHC,IF
Troy T Rohn	18634762	Brain Res	WB,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

For technical support and original validation data for this product please contact:
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E: proteintech@ptglab.com
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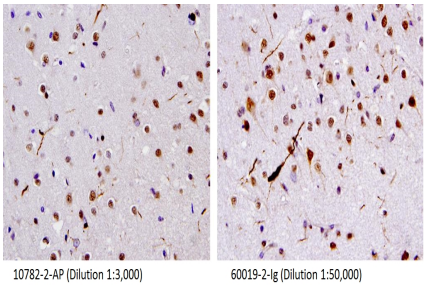
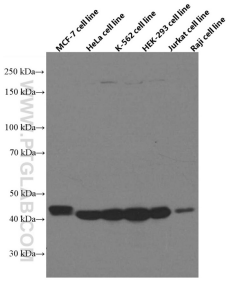
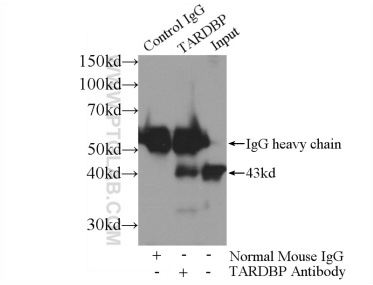
Selected Validation Data



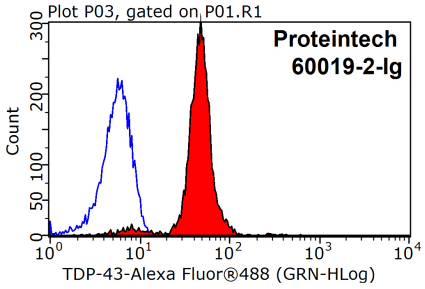
40X of FTLD-U case stained by 10782-2-AP and 60019-2-Ig, showing dystrophic neurites. (Figs were provided by Linda K. Kwong).



Various cells were subjected to SDS PAGE followed by western blot with 60019-2-Ig (TDP-43 (human specific) antibody) at dilution of 1:50000 incubated at room temperature for 1.5 hours.



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.



1X10^6 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.