

For Research Use Only

Phospho-TDP43 (Ser409/410) Recombinant antibody

Catalog Number: 80007-1-RR

16 Publications



Basic Information

Catalog Number:

80007-1-RR

Concentration:

1000 ug/ml

Source:

Rabbit

Isotype:

IgG

GenBank Accession Number:

NM_007375

GeneID (NCBI):

23435

UNIPROT ID:

Q13148

Full Name:

TAR DNA binding protein

Calculated MW:

43 kDa

Observed MW:

45-50 kDa

Purification Method:

Protein A purification

CloneNo.:

6M10

Recommended Dilutions:

WB 1:5000-1:50000

IHC 1:500-1:2000

Applications

Tested Applications:

WB, IHC, ELISA

Cited Applications:

WB, IHC, IF

Species Specificity:

human, mouse

Cited Species:

human, mouse, zebrafish

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 : HeLa cells, Calyculin A treated cells

IHC : frontal cortex of FTLD-TDP type B case, human brain 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). 80007-1-RR is a recombinant rabbit monoclonal antibody recognizing TDP-43 only when phosphorylated at 409/410. Immunohistochemical analyses using this antibody only stain the insoluble inclusions in pathologic tissues without normal diffuse nuclear staining.

Notable Publications

Author	Pubmed ID	Journal	Application
Josephine C Esposto	34339840	Biochim Biophys Acta Mol Basis Dis	WB
Svetlana Djukic	39994742	Acta Neuropathol Commun	IF
Cha Yang	39551138	J Biol Chem	WB

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

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

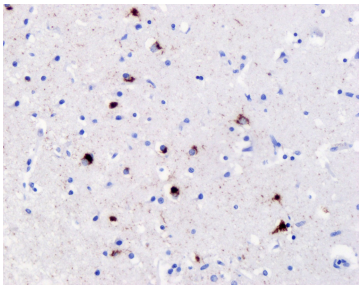
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E: Proteintech-CN@ptglab.com

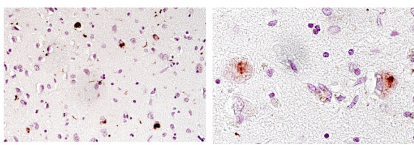
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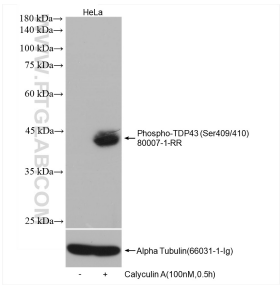
Selected Validation Data



IHC results of Phospho-TDP43 (Ser409/410) rabbit recombinant antibody (80007-1-RR, 1000) with the frontal cortex from FTLD-TDP type B patients. IHC experiment was done with Ventana automatic staining system and Optiview DAB detection kit with heat-induced epitope retrieval (boiling for 32 min in Tris-EDTA based solution CC1 buffer, Ventana). Fig from the lab of Dr. Neumann.



It's human subiculum (high-mag) and temporal cortex (medium-mag) from subject with limbic-predominant age-related TDP-43 encephalopathy neuropathologic change (LATE-NC). Staining provided by Pete Nelson and Ela Patel, U. Kentucky AD Research Center Neuropathology Core.



Non-treated and Calyculin A treated cells were subjected to SDS PAGE followed by western blot with 80007-1-RR (Phospho-TDP43 (Ser409/410) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Alpha Tubulin (66031-1-Ig) antibody as a loading control.