

Phospho-TDP43 (Ser409/410)

Recombinant antibody

 Catalog Number: 80007-1-RR **6 Publications**

Basic Information

Catalog Number:	GenBank Accession Number:	Purification Method:
80007-1-RR	NM_007375	Protein A purification
Size:	GeneID (NCBI):	CloneNo.:
1000 µg/ml	23435	6M10
Source:	UNIPROT ID:	Recommended Dilutions:
Rabbit	Q13148	WB 1:5000-1:50000
Isotype:	Full Name:	IHC 1:500-1:2000
IgG	TAR DNA binding protein	
	Calculated MW:	
	43 kDa	
	Observed MW:	
	45-50 kDa	

Applications

Tested Applications:	Positive Controls:
FC, IHC, WB, ELISA	WB: HeLa cells,
Cited Applications:	IHC: frontal cortex of FTLD-TDP type B case, human brain tissue
IF, IHC, WB	
Species Specificity:	
Human, mouse	
Cited Species:	
human, mouse	

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

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
Baggio A Evangelista	38260395	bioRxiv	WB, IF
Henrick Riemenschneider	37434215	Acta Neuropathol Commun	IHC, IF

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

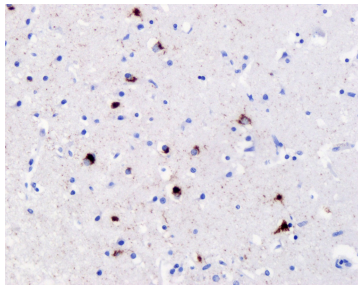
For technical support and original validation data for this product please contact:

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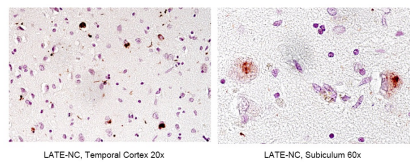
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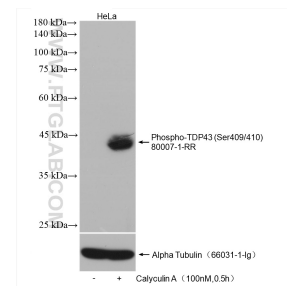
Selected Validation Data



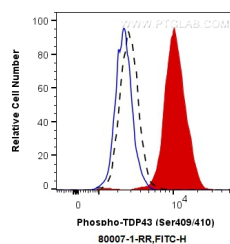
IHC results of Phospho-TDP43 (Ser409/410) rabbit recombinant antibody (80007-1-RR, 1000) with the frontal cortex from FTLD-TDP type B patients. IHC experiment was done with Ventana automatic staining system and Optiview DAB detection kit with heat-induced epitope retrieval (boiling for 32 min in Tris-EDTA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



HeLa 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.



1X10⁶ Jurkat cells untreated (dashed lines) or treated with Calyculin A (red) were intracellularly stained with 0.5 ug Anti-Human Phospho-TDP43 (Ser409/410) (80007-1-RR, Clone:6M10) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000, or 0.5 ug Control Antibody (blue). Cells were fixed with 4% PFA and permeabilized with 90% MeOH.