

Rabbit TDP43 Polyclonal Antibody | anti-TDP43 antibody

Phospho-TDP43 (Ser409/Ser410) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA31323	Rabbit	Human, Mouse, Rat	Western Blot, Immunohistochemistry, Immunofluorescence, Immunocytochemistry, ELISA

PRODUCT SYNONYMS

TDP43; Polyclonal Antibody; Phospho-TDP43 (Ser409/Ser410) Antibody; ALS10; OTTHUMP00000002171; OTTHUMP00000002172; OTTHUMP00000002173; TADBP_HUMAN; TAR DNA binding protein 43; TAR DNA binding protein; TAR DNA-binding protein 43; TARDBP; TDP 43; TDP-43; anti-TDP43 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-TDP43 (Ser409/Ser410) Antibody detects endogenous levels of TDP43 only when phosphorylated at Ser409/410. Tissue Specificity: Ubiquitously expressed. In particular, expression is high in pancreas, placenta, lung, genital tract and spleen.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-TDP43 antibody	WB (Western Blot), IHC (Immunohistochemistry), IF (Immunofluorescence), ICC (Immunocytochemistry), ELISA (Peptide ELISA)
Application Notes	IHC: 1:50-1:200 IF/ICC: 1:100-1:500 WB: 1:500-1:2000 Peptide ELISA: 1:20,000-1:40,000
Immunogen	A synthesized peptide derived from human TDP43 around the phosphorylation site of Ser409/410.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Hyperphosphorylated in hippocampus, neocortex, and spinal cord from individuals affected with ALS and FTLDU. Phosphorylated upon cellular stress. Ubiquitinated in hippocampus, neocortex, and spinal cord from individuals affected with ALS and FTLDU. Cleaved to generate C-terminal fragments in hippocampus, neocortex, and spinal cord from individuals affected with ALS and FTLDU.
Subunit Structure	Homodimer. Homooligomer (via its N-terminal domain). Interacts with BRDT (By similarity). Binds specifically to pyrimidine-rich motifs of TAR DNA and to single stranded TG repeated sequences. Binds to RNA, specifically to UG repeated sequences with a minimum of six contiguous repeats. Interacts with ATNX2; the interaction is RNA-dependent. Interacts with MATR3. Interacts with UBQLN2. Interacts with HNRNPA2B1. Interacts with ZNF106 (By similarity). Interacts with CNOT7/CAF1. Interacts with CRY2.
Similarity	Consists of an N-terminal domain (NTD) and two tandem RNA recognition motifs, RRM1 and RRM2, followed by a C-terminal glycine-rich region. Contains a nuclear localization sequence and is mostly nuclear; however, its nuclear export sequence permits it to transport mRNAs to the cytoplasm and even to synapses as part of neuronal granules.

Subcellular Location	Nucleus. Cytoplasm. Cytoplasm>Stress granule. Note: Continuously travels in and out of the nucleus (PubMed:18957508). Localizes to stress granules in response to oxidative stress (PubMed:19765185).
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



Application Data

At 25 degree C. Samples were then incubated with primary Ab(At 37 degree C. An AlexaFluor594 conjugated goat anti-rabbit IgG(H+L) Ab(Red) and an AlexaFluor488 conjugated goat anti-mouse IgG(H+L) Ab(Green) were used as the secondary antibody.The nuclear counter stain is DAPI (blue).



IHC (Immunohistochemistry)

At 1/100 staining Human gastric cancer and adjacent normal tissues by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



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IHC (Immunohistochemistry)

At 1/100 staining Human colorectal cancer and adjacent normal tissues by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

At 1/100 staining Human mammary cancer by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

At 1/100 staining Mouse kidney tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-TDP43 antibody	RNA-binding protein that is involved in various steps of RNA biogenesis and processing. Preferentially binds, via its two RNA recognition motifs RRM1 and RRM2, to GU-repeats on RNA molecules predominantly localized within long introns and in the 3'UTR of mRNAs. In turn, regulates the splicing of many non-coding and protein-coding RNAs including proteins involved in neuronal survival, as well as mRNAs that encode proteins relevant for neurodegenerative diseases. Plays a role in maintaining mitochondrial homeostasis by regulating the processing of mitochondrial transcripts. Regulates also mRNA stability by recruiting CNOT7/CAF1 deadenylase on mRNA 3'UTR leading to poly (A) tail deadenylation and thus shortening. In response to oxidative insult, associates with stalled ribosomes localized to stress granules (SGs) and contributes to cell survival. Participates also in the normal skeletal muscle formation and regeneration, forming cytoplasmic myo-granules and binding mRNAs that encode sarcomeric proteins. Plays a role in the maintenance of the circadian clock periodicity via stabilization of the CRY1 and CRY2 proteins in a FBXL3-dependent manner.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	6678271
NCBI GeneID	23435
NCBI Accession #	NP_031401.1
NCBI GenBank Nucleotide #	NM_007375.3
UniProt Accession #	Q13148; Q53H27; Q6FI92; Q96DJ0; A4GUK4; A4GUK5; A4GUK6; B2R629; E2PU12

Molecular Weight	414
NCBI Official Full Name	TAR DNA-binding protein 43
NCBI Official Synonym Full Names	TAR DNA binding protein
NCBI Official Symbol	TARDBP
NCBI Official Synonym Symbols	ALS10; TDP-43
NCBI Protein Information	TAR DNA-binding protein 43; TAR DNA-binding protein-43
UniProt Protein Name	TAR DNA-binding protein 43
UniProt Gene Name	TARDBP
UniProt Synonym Gene Names	TDP43; TDP-43
UniProt Entry Name	TADBP_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/tdp43-antibody-western-blot-immunohistochemistry-immunofluorescence-immunocytochemistry-peptide-elisa-elisa/31323>