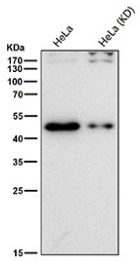
TARDBP Antibody / RNA Binding Protein Marker [clone ABAB-20] (RQ8883)

Catalog No.	Formulation	Size
RQ8883	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

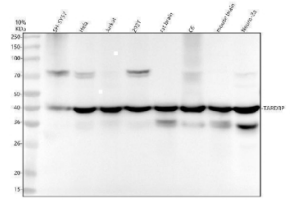
Recombinant RABBIT MONOCLONAL

Bulk quote request

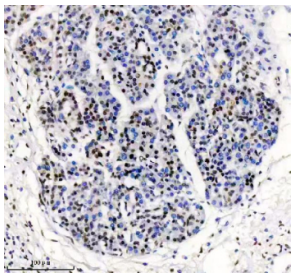
Availability	1-3 days
Species Reactivity	Human, Mouse, Rat
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	ABAB-20
Purity	Affinity chromatography
UniProt	Q13148
Localization	Nuclear, cytoplasmic
Applications	Western blot: 1:500-1:2000 Immunohistochemistry: 1:50-1:200
Limitations	This TARDBP Antibody / RNA Binding Protein Marker is available for research use only.



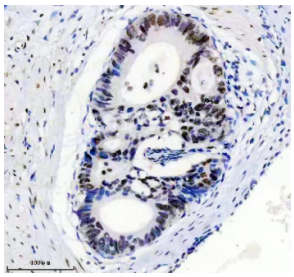
TARDBP Antibody Knockdown WB. Western blot analysis of human HeLa cell lysates from wild-type and TARDBP knockdown cells using TARDBP antibody. A prominent band is detected at approximately 43-45 kDa in wild-type cells with reduced intensity following knockdown, consistent with the predicted and commonly observed molecular weight of TAR DNA-binding protein 43 / TDP-43, an RNA-binding protein involved in RNA processing and neurodegenerative disease pathways.



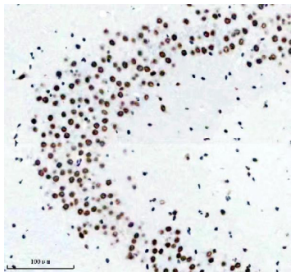
TARDBP Antibody Multi-Species WB. Western blot analysis of human SH-SY5Y, HeLa, Jurkat, and 293T cell lysates together with rat brain, rat C6, mouse brain, and mouse Neuro-2a samples using anti-TARDBP antibody. A prominent band is detected near 40-45 kDa across multiple human, rat, and mouse samples, consistent with the expected molecular weight range of TAR DNA-binding protein 43 / TDP-43. Additional lower molecular weight bands observed in select neural-derived samples may reflect proteolytic processing or disease-associated TDP-43 fragment species reported in neuronal tissues and neurodegeneration-related pathways.



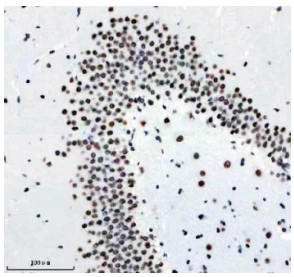
TARDBP Antibody Pancreatic Cancer IHC. Immunohistochemistry analysis of FFPE human pancreatic cancer tissue stained with anti-TARDBP antibody. Following heat-induced epitope retrieval in pH 8 EDTA buffer, strong HRP-DAB brown nuclear staining is observed in tumor cells, consistent with the known nuclear localization of TAR DNA-binding protein 43 / TDP-43, an RNA-binding protein involved in RNA processing, stress granule regulation, and post-transcriptional gene expression pathways.



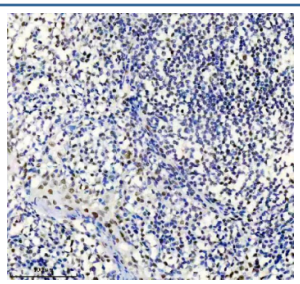
TARDBP Antibody Stomach Cancer IHC. Immunohistochemistry analysis of FFPE human stomach cancer tissue stained with anti-TARDBP antibody. Following heat-induced epitope retrieval in pH 8 EDTA buffer, strong HRP-DAB brown nuclear staining is observed in malignant epithelial cells, consistent with the known nuclear-associated expression pattern of TAR DNA-binding protein 43 / TDP-43, an RNA-binding protein involved in RNA splicing, mRNA regulation, and stress-responsive RNA metabolism pathways.



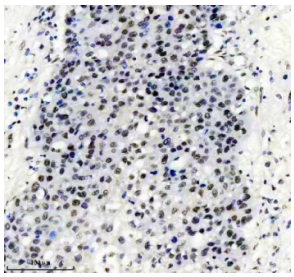
TARDBP Antibody Mouse Brain IHC. Immunohistochemistry analysis of FFPE mouse brain tissue stained with anti-TARDBP antibody. Following heat-induced epitope retrieval in pH 8 EDTA buffer, strong HRP-DAB brown nuclear staining is observed in neuronal cell populations, consistent with the known nuclear localization of TAR DNA-binding protein 43 / TDP-43, an RNA-binding protein involved in RNA splicing, stress granule biology, and neurodegeneration-associated RNA processing pathways.



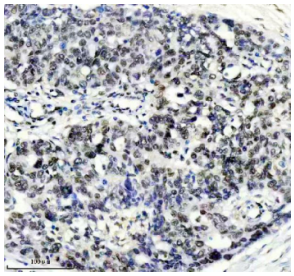
TARDBP Antibody Rat Brain IHC. Immunohistochemistry analysis of FFPE rat brain tissue stained with anti-TARDBP antibody. Following heat-induced epitope retrieval in pH 8 EDTA buffer, widespread HRP-DAB brown nuclear staining is observed in neuronal cell populations, consistent with expression of TAR DNA-binding protein 43 / TDP-43, a neuronal RNA-binding protein involved in RNA metabolism, stress-responsive ribonucleoprotein regulation, and neurodegeneration-associated signaling pathways.



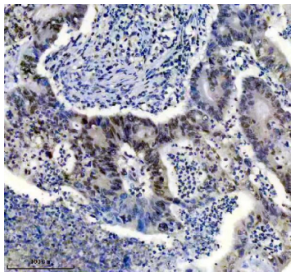
TARDBP Antibody Tonsil IHC. Immunohistochemistry analysis of FFPE human tonsil tissue stained with anti-TARDBP antibody. Following heat-induced epitope retrieval in pH 8 EDTA buffer, nuclear HRP-DAB brown staining is observed in scattered lymphoid and stromal cell populations, consistent with expression of TAR DNA-binding protein 43 / TDP-43, an RNA-binding protein involved in RNA splicing, stress granule dynamics, and post-transcriptional gene regulation.



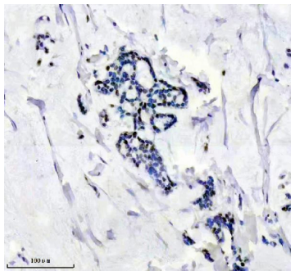
TARDBP Antibody Liver Cancer IHC. Immunohistochemistry analysis of FFPE human liver cancer tissue stained with anti-TARDBP antibody. Following heat-induced epitope retrieval in pH 8 EDTA buffer, strong HRP-DAB brown nuclear staining is observed throughout malignant cell populations, consistent with the known nuclear localization of TAR DNA-binding protein 43 / TDP-43, an RNA-binding protein involved in RNA splicing, mRNA stability, and stress-responsive RNA regulatory pathways.



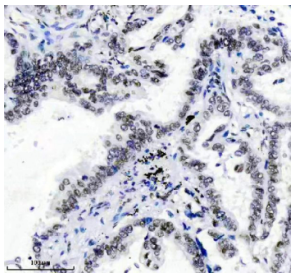
TARDBP Antibody Ovarian Cancer IHC. Immunohistochemistry analysis of FFPE human ovarian cancer tissue stained with anti-TARDBP antibody. Following heat-induced epitope retrieval in pH 8 EDTA buffer, widespread HRP-DAB brown nuclear staining is observed in malignant epithelial cells, consistent with expression of TAR DNA-binding protein 43 / TDP-43, an RNA-binding protein involved in RNA splicing, mRNA transport, and stress-responsive RNA metabolism pathways.



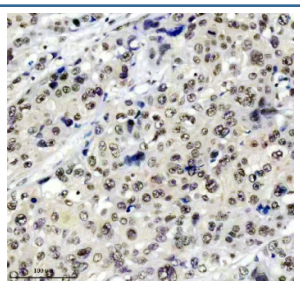
TARDBP Antibody Rectal Cancer IHC. Immunohistochemistry analysis of FFPE human rectal cancer tissue stained with anti-TARDBP antibody. Following heat-induced epitope retrieval in pH 8 EDTA buffer, moderate to strong HRP-DAB brown nuclear staining is observed in malignant glandular epithelial cells, consistent with expression of TAR DNA-binding protein 43 / TDP-43, an RNA-binding protein involved in RNA processing, mRNA stability, and stress-responsive post-transcriptional regulatory pathways.



TARDBP Antibody Breast Cancer IHC. Immunohistochemistry analysis of FFPE human breast cancer tissue stained with anti-TARDBP antibody. Following heat-induced epitope retrieval in pH 8 EDTA buffer, distinct HRP-DAB brown nuclear staining is observed in malignant epithelial cells, consistent with the known nuclear localization of TAR DNA-binding protein 43 / TDP-43, an RNA-binding protein involved in RNA splicing, mRNA regulation, and stress-responsive RNA metabolism pathways.



TARDBP Antibody Lung Cancer IHC. Immunohistochemistry analysis of FFPE human lung cancer tissue stained with anti-TARDBP antibody. Following heat-induced epitope retrieval in pH 8 EDTA buffer, strong HRP-DAB brown nuclear staining is observed in malignant epithelial cells, consistent with expression of TAR DNA-binding protein 43 / TDP-43, an RNA-binding protein involved in RNA splicing, mRNA transport, and stress-responsive RNA regulatory pathways.



TARDBP Antibody Esophageal Cancer IHC. Immunohistochemistry analysis of FFPE human esophageal cancer tissue stained with anti-TARDBP antibody. Following heat-induced epitope retrieval in pH 8 EDTA buffer, diffuse HRP-DAB brown nuclear staining is observed throughout malignant cell populations, consistent with the known nuclear-associated expression of TAR DNA-binding protein 43 / TDP-43, an RNA-binding protein involved in RNA splicing, stress granule regulation, and post-transcriptional RNA metabolism.

Description

TAR DNA-binding protein 43 (TARDBP) is a multifunctional RNA- and DNA-binding protein encoded by the TARDBP gene and involved in RNA splicing, transcriptional regulation, mRNA transport, and stress granule biology. TARDBP Antibody / RNA Binding Protein Marker is useful for studying RNA metabolism, neurodegenerative disease, stress-responsive signaling, and RNA-processing pathways. TARDBP is more commonly known as TDP-43 and belongs to the heterogeneous nuclear ribonucleoprotein family of RNA-binding proteins that regulate post-transcriptional gene expression.

TARDBP antibody, also referred to as TDP-43 antibody or TAR DNA-binding protein 43 antibody in the literature, recognizes a predominantly nuclear protein that binds UG-rich RNA sequences and participates in regulation of alternative splicing, mRNA stability, microRNA biogenesis, and RNA transport. TDP-43 normally localizes primarily within the nucleus but may redistribute to the cytoplasm during cellular stress or disease-associated protein aggregation. Because TDP-43 pathology is strongly linked to amyotrophic lateral sclerosis (ALS), frontotemporal lobar degeneration (FTLD), and additional neurodegenerative disorders, TARDBP remains a major target in neuroscience and neurodegeneration research.

TDP-43 contributes to multiple RNA-processing pathways required for neuronal maintenance, synaptic function, and stress adaptation. The protein has been implicated in regulation of stress granule assembly, protein quality-control pathways, and RNA metabolism in neurons and glial cells. Disease-associated TARDBP abnormalities may include cytoplasmic accumulation, nuclear depletion, phosphorylation, ubiquitination, and proteolytic cleavage into lower molecular weight fragments that accumulate in neurodegenerative lesions. In western blot studies, TARDBP is commonly detected near 43-45 kDa, although additional lower molecular weight species may occur in neural-derived tissues or disease-associated samples.

TARDBP is broadly expressed across many tissue types with particularly important roles in the nervous system, where the protein contributes to neuronal survival and RNA homeostasis. The protein has additionally been linked to cancer biology, inflammatory signaling, viral responses, and cellular stress pathways. TDP-43 localizes predominantly within the nucleus under physiologic conditions, and immunohistochemistry studies commonly demonstrate nuclear staining patterns in epithelial, neuronal, and glial cell populations.

TARDBP is encoded on human chromosome 1p36 and produces a highly conserved RNA-binding protein containing two RNA recognition motifs and a glycine-rich C-terminal domain involved in protein-protein interactions and aggregation-associated biology. The C-terminal region is especially important in neurodegenerative disease research because many ALS-associated mutations occur within this domain and influence protein aggregation behavior and cellular toxicity.

This recombinant mouse monoclonal TARDBP antibody clone ABAB-20 has been supported using western blot, knockdown validation, and immunohistochemistry approaches to confirm selective endogenous TDP-43 detection in research applications. Western blot analysis demonstrates a prominent approximately 43-45 kDa band across multiple human, mouse, and rat samples, while knockdown experiments show reduced signal intensity following TARDBP suppression in HeLa cells. Immunohistochemistry studies further support characteristic nuclear-associated TDP-43 staining patterns consistent with the known biology of this RNA-binding protein.

Researchers studying nuclear-localized regulatory proteins and transcription-associated signaling pathways may also benefit from the Nuclear Marker Antibodies page featuring antibodies against nuclear proteins involved in RNA processing, chromatin regulation, and gene expression control.

Application Notes

Optimal dilution of the TARDBP Antibody / RNA Binding Protein Marker should be determined by the researcher.

Immunogen

A peptide sequence specific to TAR DNA binding protein 43 was used as the immunogen for the TARDBP antibody.

Storage

After reconstitution, the TARDBP Antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

TDP-43 antibody, TAR DNA-binding protein 43 antibody, TARDBP neurodegeneration marker antibody, TDP43 antibody, ALS-associated RNA-binding protein antibody

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