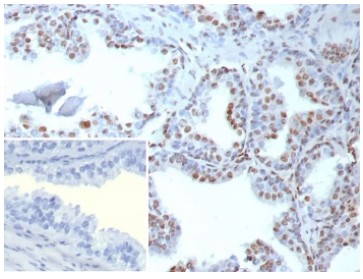
TDP43 Antibody Rabbit Monoclonal / TARDBP / TAR DNA binding protein [clone TARDP/9299R] (V5595)

Catalog No.	Formulation	Size
V5595-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5595-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5595SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

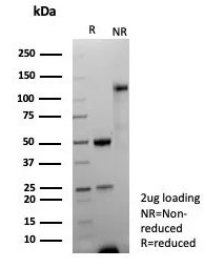
Recombinant RABBIT MONOCLONAL

Bulk quote request

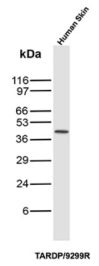
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	TARDP/9299R
Purity	Protein A/G affinity
UniProt	Q13148
Applications	Immunohistochemistry (FFPE): 1-2ug/ml Western blot: 2-4ug/ml
Limitations	This recombinant TDP43 antibody is available for research use only.



TDP43 Antibody Rabbit Monoclonal Prostate Immunohistochemistry. IHC of TDP43 antibody in human prostate tissue. FFPE human prostate shows strong nuclear HRP-DAB brown staining within glandular epithelial cells, consistent with the known nuclear localization of TAR DNA binding protein 43 / TARDBP. Clone TARDP/9299R was used as a rabbit monoclonal antibody for detection. The inset shows PBS in place of primary antibody as a negative control with absence of specific staining. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9, 10 mM Tris with 1 mM EDTA for 20 minutes followed by cooling prior to staining.



SDS-PAGE analysis of purified, BSA-free recombinant TDP43 antibody (clone TARDP/9299R) as confirmation of integrity and purity.



TDP43 Antibody Rabbit Monoclonal Human Skin WB. Western blot analysis of human skin tissue lysate using rabbit monoclonal TDP43 antibody clone TARDP/9299R. A distinct band is detected at approximately 43 kDa, consistent with the expected molecular weight of TAR DNA-binding protein 43 / TDP43, a nuclear RNA-binding protein involved in RNA processing, transcriptional regulation, and stress granule-associated signaling pathways.

Description

TDP43 antibody recognizes TAR DNA binding protein 43, also known as TARDBP, a ubiquitously expressed nuclear RNA- and DNA-binding protein encoded by the TARDBP gene. TDP-43 is predominantly localized to the nucleus under physiological conditions, where it regulates transcription, alternative splicing, RNA stability, and microRNA processing. TDP43 Antibody Rabbit Monoclonal is developed to detect endogenous TAR DNA binding protein 43 in research applications focused on RNA metabolism and neurodegenerative disease mechanisms.

TAR DNA binding protein 43 contains two RNA recognition motifs that bind UG-rich RNA sequences and a C-terminal glycine-rich domain that mediates protein-protein interactions. Through these domains, TARDBP controls processing and transport of numerous transcripts involved in neuronal development, synaptic function, and cellular stress responses. TDP-43 continuously shuttles between the nucleus and cytoplasm and participates in stress granule dynamics during cellular stress.

The TARDBP gene is located on chromosome 1p36.22 and produces multiple isoforms through alternative splicing. Under pathological conditions, TDP-43 undergoes cytoplasmic redistribution, hyperphosphorylation, ubiquitination, and proteolytic cleavage, generating C-terminal fragments that accumulate in inclusions. Aggregated TDP-43 is a defining pathological hallmark of amyotrophic lateral sclerosis and frontotemporal lobar degeneration. Loss of normal nuclear TARDBP function combined with toxic cytoplasmic aggregation is believed to contribute to neuronal dysfunction and degeneration.

Beyond neurodegeneration, TARDBP has been implicated in cancer biology, inflammation, and viral replication due to its broad regulatory role in gene expression. Altered expression or localization of TDP-43 may influence apoptosis pathways, cell cycle progression, and RNA regulatory networks across diverse tissue types.

Clone TARDP/9299R is a rabbit monoclonal antibody that recognizes TAR DNA binding protein 43 and supports studies of nuclear RNA regulation, cytoplasmic aggregation, and TDP-43-associated disease pathology.

For broader analysis of TDP-43 biology and RNA-processing pathways, explore our TARDBP Antibody / RNA Binding Protein Marker page featuring knockdown-validated western blot data together with multi-species and immunohistochemistry validation of endogenous TDP-43 expression.

Application Notes

Optimal dilution of the recombinant TDP43 antibody should be determined by the researcher.

Immunogen

A recombinant fragment within human TDP43 amino acid 200 to the C-terminus was used as the immunogen for the recombinant TDP43 antibody.

Storage

Aliquot the recombinant TDP43 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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