

**TDP43 Antibody**  
Rabbit mAb  
Catalog # AP91254

## Specification

---

### TDP43 Antibody - Product Information

Application	WB, IHC, FC, ICC, IP
Primary Accession	<a href="#">O13148</a>
Reactivity	Rat
Clonality	Monoclonal
<b>Other Names</b>	
ALS10; TAR DNA binding protein 43; TARDBP; TDP43;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	44740 Da

### TDP43 Antibody - Additional Information

Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human TDP43
Description	TDP43 (TAR DNA-binding protein 43) is involved in transcriptional regulation and exon splicing. While normal TDP43 is a nuclear protein, pathological TDP43 is a component of insoluble aggregates in patients with frontotemporal lobar degeneration (FTLD) and amyotrophic lateral sclerosis (ALS).
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

### TDP43 Antibody - Protein Information

**Name** TARDBP {ECO:0000303|PubMed:18396105, ECO:0000312|HGNC:HGNC:11571}

#### Function

RNA-binding protein that is involved in various steps of RNA biogenesis and processing (PubMed:<a href="http://www.uniprot.org/citations/23519609" target="\_blank">23519609</a>). 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 (PubMed:<a href="http://www.uniprot.org/citations/23519609" target="\_blank">23519609</a>, PubMed:<a href="http://www.uniprot.org/citations/24240615" target="\_blank">24240615</a>, PubMed:<a href="http://www.uniprot.org/citations/24464995" target="\_blank">24464995</a>). 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 (PubMed:<a href="http://www.uniprot.org/citations/21358640" target="\_blank">21358640</a>, PubMed:<a href="http://www.uniprot.org/citations/29438978" target="\_blank">29438978</a>). Plays a role in maintaining mitochondrial homeostasis by regulating the processing of mitochondrial transcripts (PubMed:<a href="http://www.uniprot.org/citations/28794432" target="\_blank">28794432</a>). Regulates also mRNA stability by recruiting CNOT7/CAF1 deadenylase on mRNA 3'UTR leading to poly(A) tail deadenylation and thus shortening (PubMed:<a href="http://www.uniprot.org/citations/30520513" target="\_blank">30520513</a>). In response to oxidative insult, associates with stalled ribosomes localized to stress granules (SGs) and contributes to cell survival (PubMed:<a href="http://www.uniprot.org/citations/19765185" target="\_blank">19765185</a>, PubMed:<a href="http://www.uniprot.org/citations/23398327" target="\_blank">23398327</a>). Participates also in the normal skeletal muscle formation and regeneration, forming cytoplasmic myo-granules and binding mRNAs that encode sarcomeric proteins (PubMed:<a href="http://www.uniprot.org/citations/30464263" target="\_blank">30464263</a>). Plays a role in the maintenance of the circadian clock periodicity via stabilization of the CRY1 and CRY2 proteins in a FBXL3-dependent manner (PubMed:<a href="http://www.uniprot.org/citations/27123980" target="\_blank">27123980</a>). Negatively regulates the expression of CDK6 (PubMed:<a href="http://www.uniprot.org/citations/19760257" target="\_blank">19760257</a>). Regulates the expression of HDAC6, ATG7 and VCP in a PPIA/CYPA-dependent manner (PubMed:<a href="http://www.uniprot.org/citations/25678563" target="\_blank">25678563</a>).

#### Cellular Location

Nucleus. Cytoplasm. Cytoplasm, Stress granule Mitochondrion. Note=Continuously travels in and out of the nucleus (PubMed:18957508). Localizes to stress granules in response to oxidative stress (PubMed:19765185). A small subset localizes in mitochondria (PubMed:28794432).

#### Tissue Location

Ubiquitously expressed. In particular, expression is high in pancreas, placenta, lung, genital tract and spleen

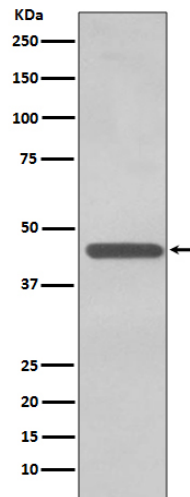
#### TDP43 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### TDP43 Antibody - Images





Western blot analysis of TDP43 expression in K562 cell lysate.