

**TARDBP Antibody (N-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP13763a**

**Specification**

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**TARDBP Antibody (N-term) - Product Information**

Application	IF, WB, IHC-P,E
Primary Accession	<a href="#">O13148</a>
Other Accession	<a href="#">O921F2</a> , <a href="#">O5ZLN5</a> , <a href="#">NP_031401.1</a>
Reactivity	Human, Mouse, Rat
Predicted	Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	1-30

**TARDBP Antibody (N-term) - Additional Information**

**Gene ID** 23435

**Other Names**

TAR DNA-binding protein 43, TDP-43, TARDBP, TDP43

**Target/Specificity**

This TARDBP antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human TARDBP.

**Dilution**

IF~~1:10~50  
WB~~1:2000  
IHC-P~~1:100

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

TARDBP Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**TARDBP Antibody (N-term) - 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:[23519609](#)). 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:[23519609](#), PubMed:[24240615](#), PubMed:[24464995](#)). 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:[21358640](#), PubMed:[29438978](#)). Plays a role in maintaining mitochondrial homeostasis by regulating the processing of mitochondrial transcripts (PubMed:[28794432](#)). Regulates also mRNA stability by recruiting CNOT7/CAF1 deadenylase on mRNA 3'UTR leading to poly(A) tail deadenylation and thus shortening (PubMed:[30520513](#)). In response to oxidative insult, associates with stalled ribosomes localized to stress granules (SGs) and contributes to cell survival (PubMed:[19765185](#), PubMed:[23398327](#)). Participates also in the normal skeletal muscle formation and regeneration, forming cytoplasmic myo-granules and binding mRNAs that encode sarcomeric proteins (PubMed:[30464263](#)). 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:[27123980](#)). Negatively regulates the expression of CDK6 (PubMed:[19760257](#)). Regulates the expression of HDAC6, ATG7 and VCP in a PPIA/CYPA-dependent manner (PubMed:[25678563](#)).

#### **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

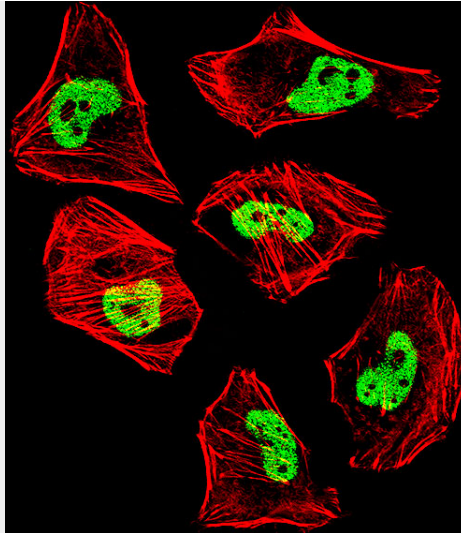
#### **TARDBP Antibody (N-term) - Protocols**

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

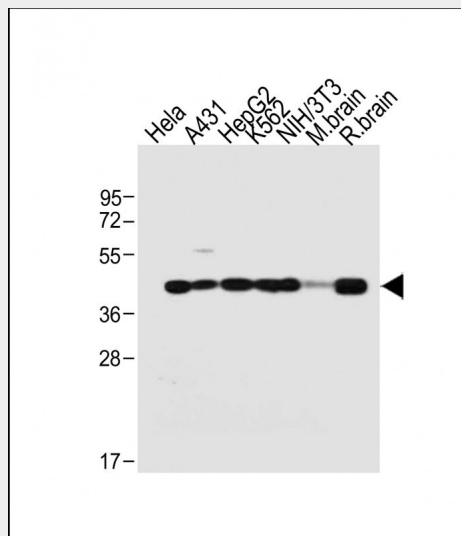
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### **TARDBP Antibody (N-term) - Images**

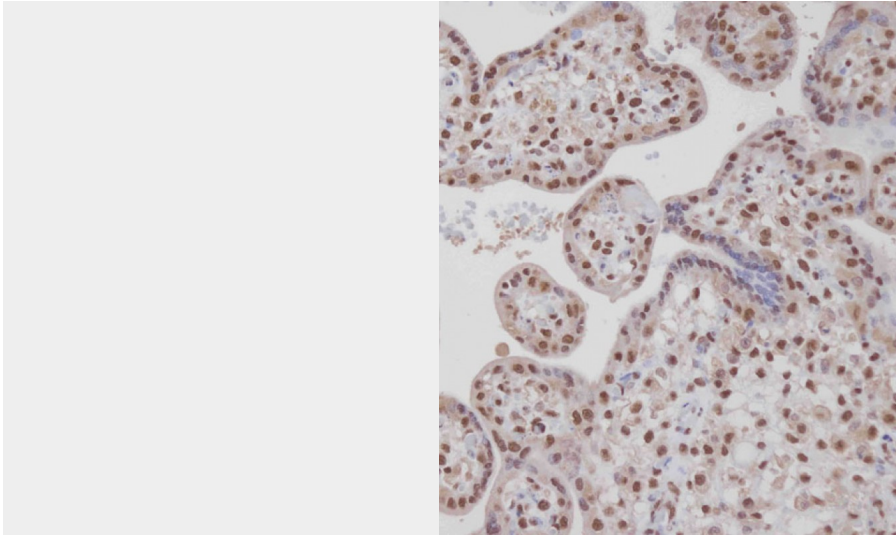




Fluorescent confocal image of HeLa cell stained with TARDBP Antibody (N-term)(Cat#AP13763a).HeLa cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with TARDBP primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37°C).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37°C). Nuclei were counterstained with DAPI (10 µg/ml, 10 min).TARDBP immunoreactivity is localized to nucleus significantly and Cytoplasm weakly.



All lanes : Anti-TARDBP Antibody (N-term) at 1:2000 dilution Lane 1: HeLa whole cell lysate Lane 2: A431 whole cell lysate Lane 3: HepG2 whole cell lysate Lane 4: K562 whole cell lysate Lane 5: NIH/3T3 whole cell lysate Lane 6: Mouse brain tissue lysate Lane 7: Rat brain tissue lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 45 kDa Blocking/Dilution buffer: 5% NFDN/TBST.



Immunohistochemical analysis of AP13763A on paraffin-embedded Human placenta tissue. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval was performed by EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:100) for 1 hour at room temperature. Undiluted CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.

#### **TARDBP Antibody (N-term) - Background**

HIV-1, the causative agent of acquired immunodeficiency syndrome (AIDS), contains an RNA genome that produces a chromosomally integrated DNA during the replicative cycle. Activation of HIV-1 gene expression by the transactivator Tat is dependent on an RNA regulatory element (TAR) located downstream of the transcription initiation site. The protein encoded by this gene is a transcriptional repressor that binds to chromosomally integrated TAR DNA and represses HIV-1 transcription. In addition, this protein regulates alternate splicing of the CFTR gene. A similar pseudogene is present on chromosome 20. [provided by RefSeq].

#### **TARDBP Antibody (N-term) - References**

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Mackenzie, I.R., et al. Lancet Neurol 9(10):995-1007(2010)  
Shan, X., et al. Proc. Natl. Acad. Sci. U.S.A. 107(37):16325-16330(2010)  
McKee, A.C., et al. J. Neuropathol. Exp. Neurol. 69(9):918-929(2010)