

TDP-43 / TARDBP Antibody (Internal)
Rabbit Polyclonal Antibody
Catalog # ALS12173**Specification**

TDP-43 / TARDBP Antibody (Internal) - Product Information

Application	ICC, IF, WB, IHC
Primary Accession	Q13148
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	45kDa KDa

TDP-43 / TARDBP Antibody (Internal) - Additional Information**Gene ID** 23435**Other Names**

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

Target/Specificity

An 18 amino acid peptide from near the center of human TDP43. This antibody recognizes only the longer of the two isoforms.

Reconstitution & Storage

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles. Store undiluted.

Precautions

TDP-43 / TARDBP Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

TDP-43 / TARDBP Antibody (Internal) - 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:23398327, PubMed:19765185). 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

Volume

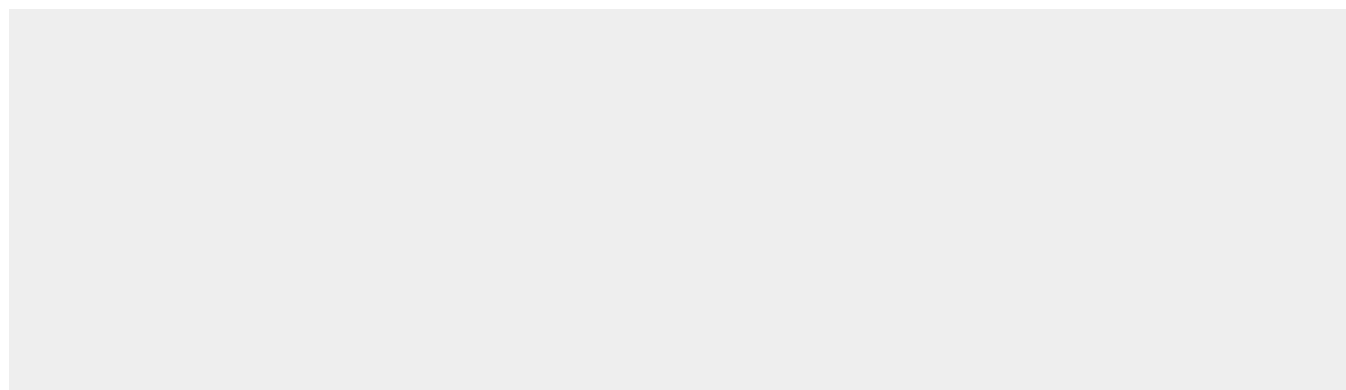
50 µl

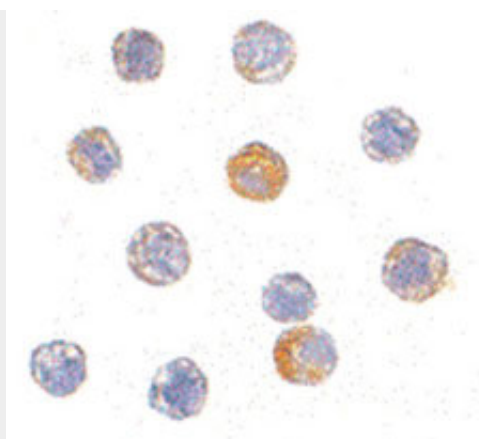
TDP-43 / TARDBP Antibody (Internal) - Protocols

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

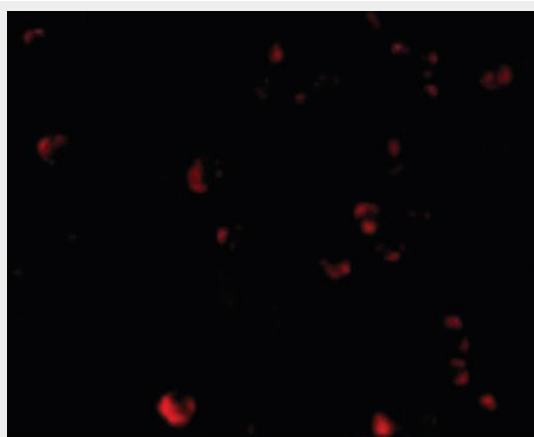
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

TDP-43 / TARDBP Antibody (Internal) - Images

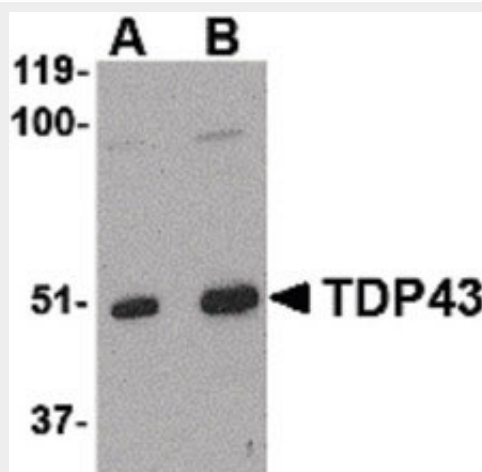




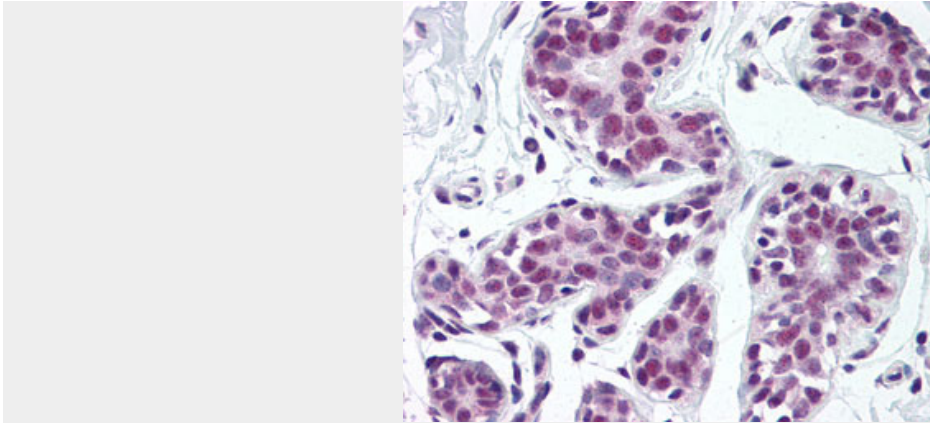
Immunocytochemistry of TDP43 in HeLa cells with TDP43 antibody at 5 ug/ml.



Immunofluorescence of TDP43 in HeLa cells with TDP43 antibody at 20 ug/ml.



Western blot of TDP43 in L1210 cell lysate with TDP43 antibody at (A) 0.5, (B) 1 and (C) 2 ug/ml.



Anti-TARDBP antibody IHC of human breast.

TDP-43 / TARDBP Antibody (Internal) - Background

DNA and RNA-binding protein which regulates transcription and splicing. Involved in the regulation of CFTR splicing. It promotes CFTR exon 9 skipping by binding to the UG repeated motifs in the polymorphic region near the 3'-splice site of this exon. The resulting aberrant splicing is associated with pathological features typical of cystic fibrosis. May also be involved in microRNA biogenesis, apoptosis and cell division. Can repress HIV-1 transcription by binding to the HIV-1 long terminal repeat. Stabilizes the low molecular weight neurofilament (NFL) mRNA through a direct interaction with the 3' UTR.

TDP-43 / TARDBP Antibody (Internal) - References

- Ou S.-H.I.,et al.J. Virol. 69:3584-3596(1995).
Strong M.J.,et al.Mol. Cell. Neurosci. 35:320-327(2007).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Ebert L.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
Suzuki Y.,et al.Submitted (APR-2005) to the EMBL/GenBank/DDBJ databases.