

KD-Validated Anti-TAR DNA binding protein Rabbit Monoclonal Antibody
Rabbit monoclonal antibody
Catalog # AGI1472**Specification****KD-Validated Anti-TAR DNA binding protein Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	Q13148
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 45 kDa, observed, 40 kDa
Gene Name	KDa
Aliases	TARDBP TARDBP; TAR DNA Binding Protein; TDP-43; ALS10; TAR DNA-Binding Protein 43; TAR DNA-Binding Protein-43; TDP43
Immunogen	A synthesized peptide derived from human TDP43

KD-Validated Anti-TAR DNA binding protein Rabbit Monoclonal Antibody - Additional Information

Gene ID	23435
Other Names	
TAR DNA-binding protein 43, TDP-43, TARDBP {ECO:0000303 PubMed:18396105, ECO:0000312 HGNC:HGNC:11571}	

KD-Validated Anti-TAR DNA binding protein Rabbit Monoclonal 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: [23519609](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/23519609), PubMed: [24240615](http://www.uniprot.org/citations/24240615), PubMed: [24464995](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/21358640), PubMed: [29438978](http://www.uniprot.org/citations/29438978)). Plays a role in maintaining mitochondrial homeostasis by regulating the processing of mitochondrial transcripts (PubMed: [28794432](http://www.uniprot.org/citations/28794432)). Also regulates 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). Also participates 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

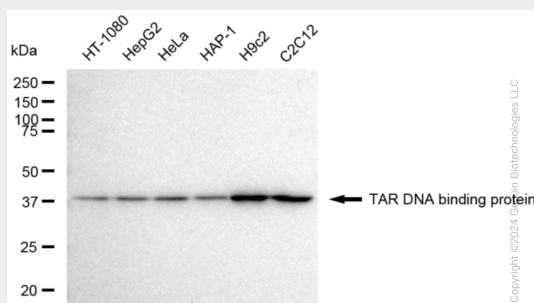
Ubiquitously expressed. In particular, expression is high in pancreas, placenta, lung, genital tract and spleen

KD-Validated Anti-TAR DNA binding protein Rabbit Monoclonal Antibody - Protocols

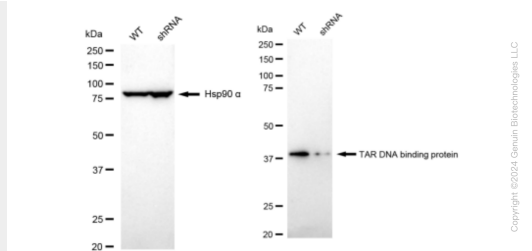
Provided below are standard protocols that you may find useful for product applications.

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

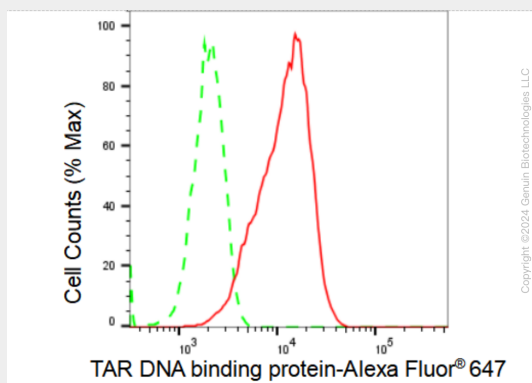
KD-Validated Anti-TAR DNA binding protein Rabbit Monoclonal Antibody - Images



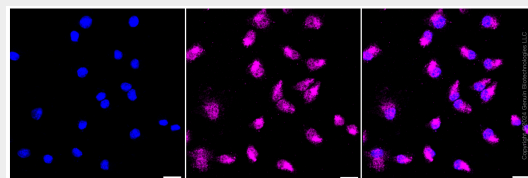
Western blotting analysis using anti-TAR DNA binding protein antibody (Cat#AGI1472). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-TAR DNA binding protein antibody (Cat#AGI1472, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-TAR DNA binding protein antibody (Cat#AGI1472). TAR DNA binding protein expression in wild type (WT) and TAR DNA binding protein shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-TAR DNA binding protein antibody (Cat#AGI1472, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of TAR DNA binding protein expression in C2C12 cells using TAR DNA binding protein antibody (Cat#AGI1472, 1:2,000). Green, isotype control; red, TAR DNA binding protein.



Immunocytochemical staining of C2C12 cells with TAR DNA binding protein antibody (Cat#AGI1472, 1:1,000). Nuclei were stained blue with DAPI; TAR DNA binding protein was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.