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

Rabbit monoclonal antibody
Catalog # AGI1287

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, 45 kDa KDa**
Gene Name	**TARDBP**
Aliases	**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). 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). 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).

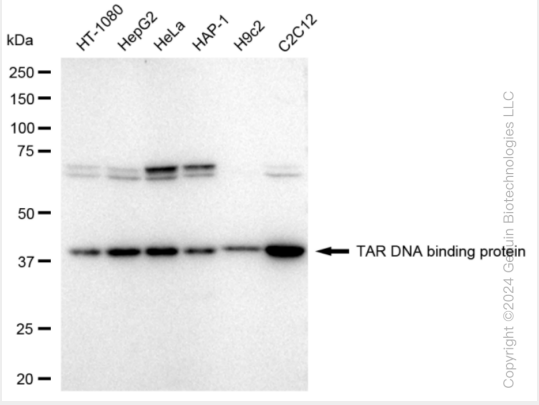
Tissue Location
Ubiquitously expressed. In particular, expression is high in pancreas, placenta, lung, genital tract and spleen

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 Cytomety
- Cell Culture

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



Western blotting analysis using anti-TAR DNA binding protein antibody (Cat#61519). Total cell

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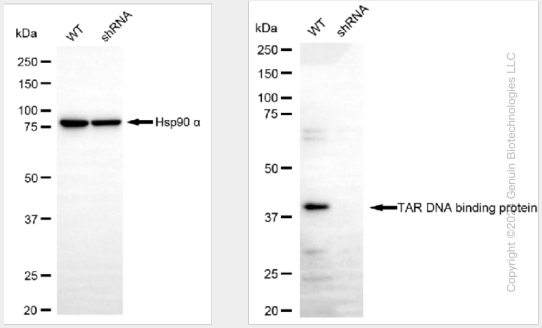
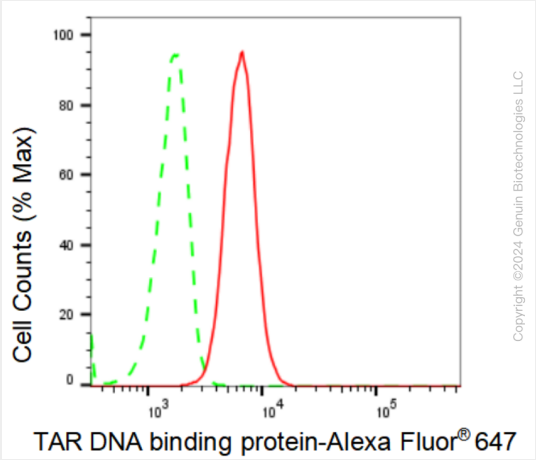
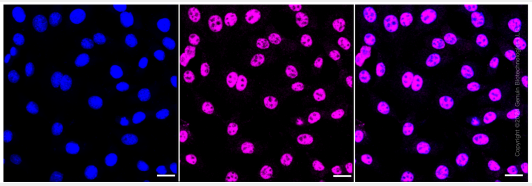
lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-TAR DNA binding protein antibody (Cat#61519, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (Cat#201, 1:20,000) respectively. Image was developed using FeQ™ ECL Substrate Kit (Cat#226).



Western blotting analysis using anti-TAR DNA binding protein antibody (Cat#61519). 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#61519, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (Cat#201, 1:20,000) respectively. Image was developed using FeQ™ ECL Substrate Kit (Cat#226).



Flow cytometric analysis of TAR DNA binding protein expression in C2C12 cells using TAR DNA binding protein antibody (Cat#61519, 1:2,000). Green, isotype control; red, TAR DNA binding protein.



Immunocytochemical staining of C2C12 cells with TAR DNA binding protein antibody (Cat#61519, 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.